SQUIRE, SANDERS & DEMPSEY L.L.P.
1300 Huntington Center
41 South High Street
Columbus, Ohio 43215-6197
Office: +1.614.365.2700
Fax: +1.614.365.2499

SQUIRE SANDERS | LEGAL COUNSEL WORLDWIDE

jdemonte@ssd.com
614-365-2809

May 11, 2006

VIA FEDERAL EXPRESS

Elise S. Feldman
U.S. Department of Justice
Environmental Enforcement Section
Environmental and Natural Resources Division
601 D Street, Mailroom 2121
Washington DC 20004

Re: EaglePicher Holdings, Inc., et al., No. 05-12601 (Bankr. S.D. Ohio)

Dear Elise:

Please find enclosed several documents that we are providing to our consultant, ENVIRON. Because we are providing these documents to ENVIRON, we are producing copies to you now as a courtesy. They are Bates numbered MI0013213 to MI0013312. The enclosed Michigan documents, with the exception of one, do not relate to the Designated Property site in River Rouge, Michigan ("River Rouge Property"), but rather relate to another former EaglePicher parcel, 1900 W. Pleasant Ave., River Rouge, Michigan that was sold by EaglePicher in 1992 to S & J Disposal and Recycling, Inc. ("S&J Property"). The S&J Property is located immediately to the north of the River Rouge Property and is separated from the River Rouge Property by West Pleasant Avenue.

We are providing these documents simply to clarify that the 4 underground storage tanks (USTs) identified on Michigan Department of Environmental Quality's leaking UST list, http://www.michigan.gov/deq/0,1607,7-135-3311---,00.html, and the identified release incident are related to former USTs on the S&J Property and not the River Rouge Property. Nor do these tanks relate to the former EaglePicher Fabricon Products Division facility at 1721 West Pleasant Avenue that was sold in 1998 ("Fabricon Property"). The Fabricon Property is located directly east of the River Rouge Property. The River Rouge Property was retained by EaglePicher when this Fabricon Property was sold.

Again, we are merely providing these documents for clarification purposes because the addresses for the Fabricon Property and the S&J Property are sometimes inaccurately interchanged.

In reviewing our files on the S&J Property for these clarifying documents, we identified a one-page document that we believe relates to the River Rouge Property, Bates number MI0013269. We found this one- page document inserted at the back of an unrelated document on the S&J Property, however, it is labeled in the handwriting at the top "ERM Phase I Report 11/30/90 Fab Products." It may be a page from the 1990 Environmental Resource Management, Inc. ("ERM") Phase I Environmental Assessment for the Fabricon Property. You may recall that we identified an ERM Phase III in Debtor's files, but did not find the Phase I or Phase II Reports (nor did ERM have copies of such reports in its files). By copy of this letter, we are also providing a copy of the document to Jonathan Pierce of the Michigan Attorney General's office.

If you have questions regarding the foregoing, please do not hesitate to let us know.

Very truly yours,

/s/ Jessica E. DeMonte

Jessica E. DeMonte

Enclosures

cc: Jon Gulch (via Fed Ex)
Jonathan Pierce (Michigan, via Fed Ex)
Jason Barbeau (via Fed Ex)
Stephen D. Lerner (via email)
Scott A. Kane (via email)
Karen A. Winters (via email)
Patrick J. Brooks (via email)

JED/acp

U.S. ENVIRONMENTAL
PROTECTION AGENCY

MAY 15 2006

OFFICE OF REGIONAL
COUNSEL

313-562-6400
FAX 313-562-8248
TWX-810-221-5124

WOLVERINE GASKET & MFG. CO.

2638 PRINCESS STREET • INKSTER, MICHIGAN 48141-2398

January 17, 1990

Anthony G. Pitts
Environmental Quality Analyst
MI DNR, SE Field Office
Environmental Response Division
Northville, MI 48167

RE: Review and update of fuel oil UST removal at
Wolverine Gasket - 1900 W Pleasant Ave, River Rouge.

Dear Mr. Pitts,

After a 12,000 gallon underground fuel oil storage tank was uncovered in Novermber 1988, your office was notified that soil contamination was evident. Approximately 200 cubic yards of contaminated soil was excavated and disposed of at BFI's Arbor Hills Landfill. Well points were placed at each end of the excavation zone and soil backfilled around them.

On February 2, 1989, I phoned you concerning the "monitoring wells". You recommended analyzing the wells each quarter for two to three quarters. This has been completed, and petroleum hydrocarbons have been detected. As you can see from the enclosed analytical reports, the wells are virtually dry and are inadequate for the heavy clay soil.

To better evaluate the site, I plan to install three 2-inch PVC monitoring wells outside and below the excavation zone. Mark Erickson of WW Engineering and Science is preparing a proposal for this work

Any questions, comments or suggestions you may have are welcome. You can contact me at our Inkster facility, 562-6400.

Sincerely,

Cindy Wentzel
Plant Chemist

encs.

cc: Dorsey Anderson

DIHYDRO ANALYTICAL REPORT

CLIENT: Wolverine Gasket Company

REPORT#: L-89-02-67

SAMPLING DATE: 2-17-89

SAMPLING SITE(S): Wolverine Gasket • 1900 Pleasant • River Rouge

On February 17, 1989 Dihydro sampled two wells for Wolverine Gasket Company. The wells were located at the Fabricon Plant in River Rouge. Prior to sample collection, the static water level and depth of the wells were measured. Each well was purged three volumes of water or until the well went dry. The wells at Fabricon were quite shallow and went dry before the three volumes were removed. As a result, the samples were collected after the wells recharged to a significant volume.

Well	Static Water Level	Depth	Amount Purged	Color	Odor
MW-1	4.64	16.50	1/2 Gallon - Dry	Brown	Petroleum
MW-2	4.20	16.41	1 Gallon - Dry	Brown	Petroleum

DIHYDRO ANALYTICAL REPORT

CLIENT: Wolverine Gasket Company

REPORT#: L-89-02-67

SAMPLING DATE: 2-17-89

SAMPLING SITE(S): Wolverine Gasket • 1900 Pleasant • River Rouge

PARAMETERS	RESULTS
Matrix:	***Water***
Sample(s) Description:	***MW-2***
Total Petroleum Hydrocarbons	190

All results are expressed as mg/l (ppm) except as noted.

Fred Hoitash
Director of Environmental Services

DIHYDRO ANALYTICAL REPORT

CLIENT: Wolverine Gasket Company

REPORT#: L-89-05-110

SAMPLING DATE: 5-17-89

SAMPLING SITE(S): Wolverine Gasket • 1900 Pleasant • River Rouge

Field Report

On May 17, 1989 Dihydro sampled two wells for Wolverine Gasket Company. The wells were located at the Fabricon Plant in River Rouge. Prior to sample collection, the static water level and depth of the wells were measured. Each well was purged three volumes of water or until the well went dry. The wells at Fabricon were quite shallow and went dry before the three volumes were removed. As a result, the samples were collected after the wells recharged to a significant volume.

Well	Static Water Level (ft.)	Depth (ft.)	Amount Purged	Color	Odor
MW-1	4.58	16.50	1/2 Gallon - Dry	Brown	Petroleum
MW-2	4.35	16.41	1 Gallon - Dry	Brown	Petroleum

DIHYDRO ANALYTICAL REPORT

CLIENT: Wolverine Gasket Company

REPORT#: L-89-05-110

SAMPLING DATE: 5-17-89

SAMPLING SITE(S): River Rouge Plant • 1900 Pleasant

PARAMETERS	RESULTS	
Matrix:	***Water***	
Sample(s) Description:	***MW-1***	***MW-2***
Total Petroleum Hydrocarbons	150	130

All results are expressed as mg/l (ppm) except as noted.

Fred Hoitash

Fred Hoitash
Director of Environmental Services

DIHYDRO ANALYTICAL SERVICES

Dihydro Analytical Services, 4541 Fletcher, Wayne, MI, (313) 595-0335

A Division of DIHYDRO SERVICES

DIHYDRO ANALYTICAL REPORT

CLIENT: Wolverine Gasket Company

REPORT#: L-89-10-159

SAMPLING DATE: 10-2-89

SAMPLING SITE(S): Wolverine Gasket • 1900 Pleasant • River Rouge

On October 2, 1989, Dihydro sampled two wells for Wolverine Gasket Company. The wells were located at the Fabricon Plant in River Rouge. Prior to sample collection, the static water level and depth of the wells were measured. Each well was purged three volumes of water or until the well went dry. The wells at Fabricon were quite shallow and went dry before the three volumes were removed. As a result, the samples were collected after the wells recharged to a significant volume. The samples were collected by Brian Hall.

Well	Static Water Level	Depth	Amount Purged	Color	Odor
MW-1	4.95'	16.9'	1 Gallon - Dry	Black	Fuel
MW-2	4.29'	15.3'	1-1/2 Gallons - Dry	Orange	Fuel

DIHYDRO ANALYTICAL REPORT

CLIENT: Wolverine Gasket Company

REPORT#: L-89-10-159

SAMPLING SITE: Fabricon Plant

SAMPLING DATE: 10-24-89

MATRIX: Water

PARAMETERS	RESULT	
Sample Description:	***MW-1***	***MW-2***
Total Petroleum Hydrocarbons	110	83

All results are expressed as mg/l (ppm) except as noted.

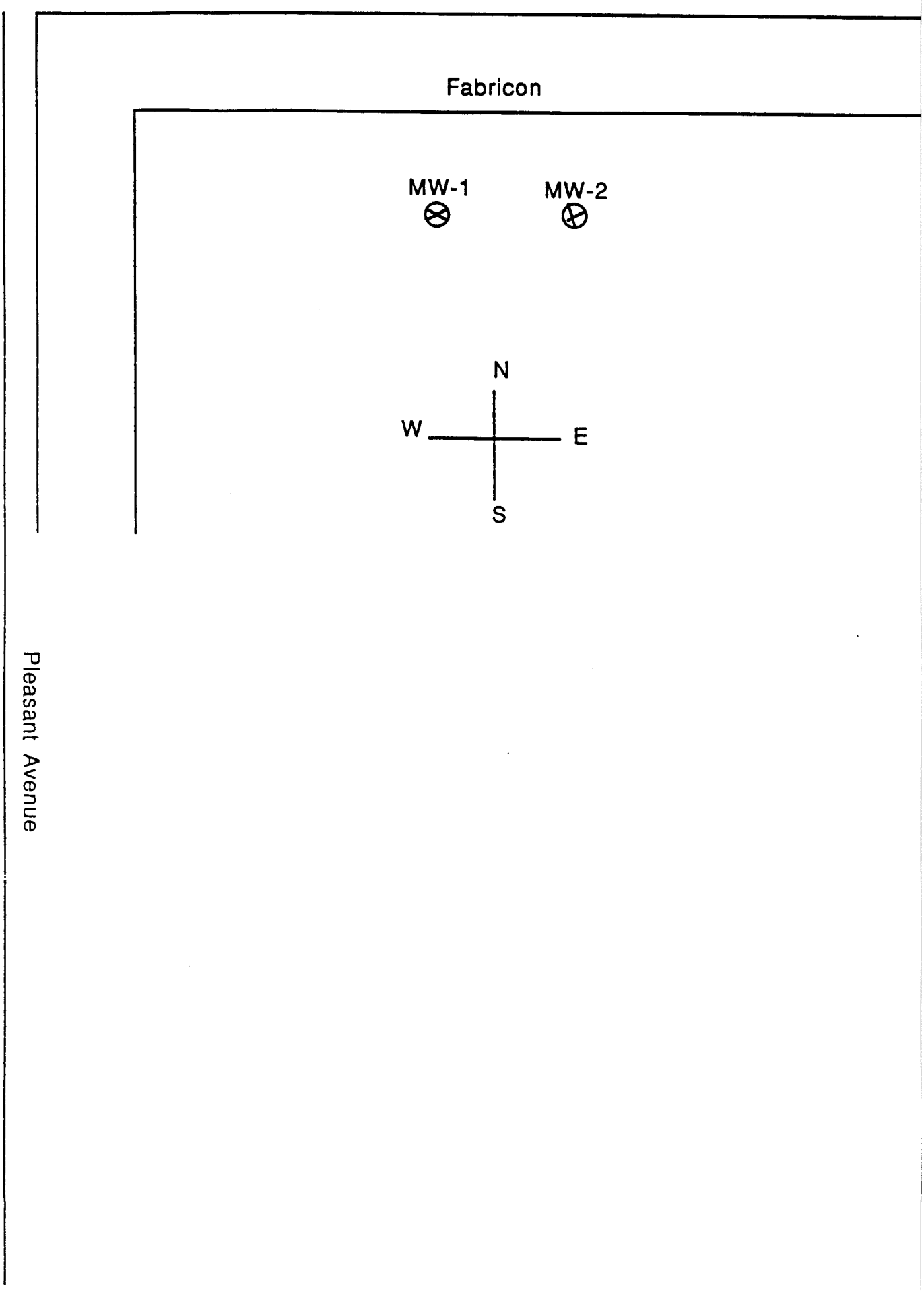
Fred Hoitash

Fred Hoitash
Director of Environmental Services

DIHYDRO ANALYTICAL SERVICES

Dihydro Analytical Services, 4541 Fletcher, Wayne, MI, (313) 595-0335

A Division of DIHYDRO


Fabricon
MW-1
MW-2
N
W
E
S
Pleasant Avenue

313-562-6400
FAX 313-562-8248
TWX-810-221-5124

WOLVERINE GASKET & MFG. CO.

2638 PRINCESS STREET • INKSTER MICHIGAN 48141-2398

March 6, 1990

Michigan State Police
State Fire Marshal Division
UST Program
7150 Harris Dr
Lansing, MI 48913

Re: UST Closure

Dear UST Program:

Enclosed please find a copy of the closure report for the last two USTs removed from Wolverine Gasket & MFG Company (formerly Fabricon Automotive Products), 1900 West Pleasant Ave, River Rouge. Also enclosed is an updated Notification for Underground Storage Tanks form. The 5000 and 1500 gallon tanks that you have on file to be at the River Rouge facility were removed in April, 1989 (reference closure report June 20, 1989).

If you have any questions please feel free to contact me at the Inkster facility (313) 562-6400.

Sincerely,

Cindy Wentzel

Cindy Wentzel
Plant Chemist

encs.

cc: Tim Guarino, River Rouge Fire Marshal w/o Notification form
Dorsey Anderson, Wolverine Gasket

Notification for Underground Storage Tanks

FORM APPROVED
OMB NO. 2050-0068
APPROVAL EXPIRES 9-30-91

Michigan State Police
FIRE MARSHALL DIVISION, UST PROGRAM
7150 Harris Drive
Lansing, MI. 48913

STATE USE ONLY
ID Number
Date Received

GENERAL INFORMATION

Notification is required by Federal law for all underground tanks that have been used to store regulated substances since January 1, 1974, that are in the ground as of May 8, 1986, or that are brought into use after May 8, 1986. The information requested is required by Section 9002 of the Resource Conservation and Recovery Act, (RCRA), as amended.

The primary purpose of this notification program is to locate and evaluate underground tanks that store or have stored petroleum or hazardous substances. It is expected that the information you provide will be based on reasonably available records, or, in the absence of such records, your knowledge, belief, or recollection.

Who Must Notify? Section 9002 of RCRA, as amended, requires that, unless exempted, owners of underground tanks that store regulated substances must notify designated State or local agencies of the existence of their tanks. Owner means—

(a) in the case of an underground storage tank in use on November 8, 1984, or brought into use after that date, any person who owns an underground storage tank used for the storage, use, or dispensing of regulated substances, and

(b) in the case of any underground storage tank in use before November 8, 1984, but no longer in use on that date, any person who owned such tank immediately before the discontinuation of its use.

What Tanks Are Included? Underground storage tank is defined as any one or combination of tanks that (1) is used to contain an accumulation of "regulated substances," and (2) whose volume (including connected underground piping) is 10% or more beneath the ground. Some examples are underground tanks storing: 1. gasoline, used oil, or diesel fuel, and 2. industrial solvents, pesticides, herbicides or fumigants.

What Tanks Are Excluded? Tanks removed from the ground are not subject to notification. Other tanks excluded from notification are:

1. farm or residential tanks of 1,100 gallons or less capacity used for storing motor fuel for noncommercial purposes;
2. tanks used for storing heating oil for consumptive use on the premises where stored;
3. septic tanks;
4. pipeline facilities (including gathering lines) regulated under the Natural Gas Pipeline Safety Act of 1968, or the Hazardous Liquid Pipeline Safety Act of 1979, or which is an intrastate pipeline facility regulated under State laws;
5. surface impoundments, pits, ponds, or lagoons;
6. storm water or waste water collection systems;
7. flow-through process tanks;
8. liquid traps or associated gathering lines directly related to oil or gas production and gathering operations;
9. storage tanks situated in an underground area (such as a basement, cellar, mineworking, drift, shaft, or tunnel) if the storage tank is situated upon or above the surface of the floor.

What Substances Are Covered? The notification requirements apply to underground storage tanks that contain regulated substances. This includes any substance defined as hazardous in section 101 (14) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), with the exception of those substances regulated as hazardous waste under Subtitle C of RCRA. It also includes petroleum, e.g., crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute).

Where To Notify? Completed notification forms should be sent to the address given at the top of this page.

When To Notify? 1. Owners of underground storage tanks in use or that have been taken out of operation after January 1, 1974, but still in the ground, must notify by May 8, 1986. 2. Owners who bring underground storage tanks into use after May 8, 1986, must notify within 30 days of bringing the tanks into use.

Penalties: Any owner who knowingly fails to notify or submits false information shall be subject to a civil penalty not to exceed $10,000 for each tank for which notification is not given or for which false information is submitted.

INSTRUCTIONS

Please type or print in ink all items except "signature" in Section V. This form must be completed for each location containing underground storage tanks. If more than 5 tanks are owned at this location, photocopy the reverse side, and staple continuation sheets to this form.

Indicate number of continuation sheets attached: ☐

I. OWNERSHIP OF TANK(S)

Owner Name (Corporation, Individual, Public Agency, or Other Entity)
WOLVERINE GASKET & MANUFACTURING CO

Street Address
1900 W PLEASANT

County
WAYNE

City: RIVER ROUGE | State: MI | ZIP Code: 48218

Area Code: (313) | Phone Number: 562-6400

Type of Owner *(Mark all that apply ☒)*

- ☒ Current
- ☐ Former
- ☐ State or Local Gov't
- ☐ Federal Gov't (GSA facility I.D. no. _____)
- ☒ Private or Corporate
- ☐ Ownership uncertain

II. LOCATION OF TANK(S)

(If same as Section 1, mark box here ☒)

Facility Name or Company Site Identifier, as applicable

Street Address or State Road, as applicable

County

City (nearest) | State | ZIP Code

Indicate number of tanks at this location: 0

Mark box here if tank(s) are located on land within an Indian reservation or on other Indian trust lands: ☐

III. CONTACT PERSON AT TANK LOCATION

Name (If same as Section I, mark box here ☐)	Job Title	Area Code	Phone Number
Cindy Wentzel	Plant Chemist	313	562-6400

IV. TYPE OF NOTIFICATION

☒ Mark box here only if this is an amended or subsequent notification for this location.

V. CERTIFICATION (Read and sign after completing Section VI.)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete.

Name and official title of owner or owner's authorized representative	Signature	Date Signed
Cindy Wentzel	Cindy Wentzel	3-5-90

CONTINUE ON REVERSE SIDE

MI0013222

CLOSURE REPORT

UST REMOVALS
1900 WEST PLEASANT
RIVER ROUGE, MICHIGAN

prepared for....

WOLVERINE GASKET COMPANY

Project No. 21443

February 20, 1990

WW Engineering & Science

BACKGROUND

WW Engineering & Science (WWES), formerly EDI Engineering & Science, was retained by Wolverine Gasket (Wolverine), a division of Eagle-Picher Automotive Group, to provide tank management services to close two (2) 10,000-gallon underground storage tanks (UST's) at the former Wolverine Gasket & Manager Company manufacturing facility, located at 1900 W. Pleasant, River Rouge, Michigan. The facility, which had been destroyed by fire in November, 1988, was being decommissioned by Wolverine.

WWES was initially requested by Wolverine to effect closure of the UST's by filling the tanks in place since they were found to be under the foundation of an adjacent building. Decision was later made by Wolverine to remove the UST's without regard to any subsequent structural damage to the building. The UST's, two of four tanks registered with the State Fire Marshal Division, were reported to WWES as having contained Methanol and an Ethanol based Phenolic Resin. Subsequent cleaning of the tanks confirmed the reported contents to be correct.[1]

PRELIMINARY INVESTIGATION

Prior to contracting WWES, Wolverine had attempted to remove the UST's when it was discovered that the tanks lay partially under the building foundation. All piping to the tanks had been removed, resulting in surface runoff that partially filled both tanks with water. A third tank, which lay perpendicular to the two 10,000-gallon tanks, had been previously removed by Wolverine.

WWES obtained the opinion of a structural engineer who advised Wolverine by letter that the UST removal could result in structural damage to the adjacent building. The letter further stated that the tanks could be removed if Wolverine were willing to accept that an unusable building might result. Wolverine accepted this consequence.

UST REMOVAL AND CLOSURE

WWES sub-contracted Young's Environmental Cleanup, Inc. to remove, clean, and destroy the UST's. A sample of the water (surface runoff) contained in the tanks was obtained and submitted to Usher Oil for disposal characterization and approval. Work commenced on the UST removal on November 30, 1989, with WWES retaining Marine Pollution Control to pump and deliver the tank contents to Usher Oil for disposal. Manifesting of the contents was handled and administered by Wolverine's representative.

Excavation of the tanks commenced following the removal of the tank contents. Due to a severely constrained working space (see partial site plan, Appendix D), only two sides of

[1] Records of the State Fire Marshal indicate that the two 10,000-gallon tanks contained Gasoline and Phenolic Resin.

the tanks could be accessed for excavation which dictated that only one tank at a time could be removed. Both tanks had approximately two feet of concrete ballast cover which had to be broken and removed to effect removal. The tanks were removed without incident or apparent damage to the adjacent building. Following sample collection, the excavation was backfilled with imported sand and the spoils that had been excavated. Prior to backfilling, all spoils that were excavated were screened with a photoionization detector (PID), were subjected to visual scrutiny, and were deemed not to have been contaminated by the tank contents. The location of the tanks was in a low-lying area with a lot of standing, stagnant water present. The odor of the standing water was similar to that pumped from the tanks. Readings recorded on the PID were in response to the obvious stagnant water and organic matter found in the upper soil layers.

The tanks were cleaned on-site and, subsequently, transferred by Young's to Rittman Scrap where they were cut up for scrap metal. The Tank Disposal Certificate is attached as Appendix E. Upon accessing the tanks for cleaning, large quantities of residues were found to have hardened in the tank bottoms. Each tank had in excess of two feet of solid residue. The residues from the phenolic resin tank had to be broken mechanically in order to remove them from the tank. Photographs of the tank contents are attached as Appendix F. The contents, along with the tank rinse, were stored in H-type, 55-gallon drums on-site while analysis was performed for proper disposal. Disposal of the drums was arranged by Wolverine's representative.

POST CLOSURE REQUIREMENTS

An assessment of the excavation zone was performed by WWES and is attached as Appendix A. The findings of the assessment reflect that no releases from the two 10,000-gallon UST's were present. These findings, along with this report, are to be kept on file by the tank owner for three years. A copy of the Closure Report has been requested by the City of River Rouge Fire Marshal and should be sent to:

Fire Marshal
City of River Rouge
Attn: Tim Guarino
10600 W. Jefferson
River Rouge, Michigan 48218

An amended Notification for Underground Storage Tanks should be completed by Wolverine and sent to The Michigan State Police Fire Marshal Division, along with two copies of the Closure Report. The amended report should reflect the removal of the two 10,000-gallon tanks as well as the 5,000-gallon tank removed by Wolverine and the status of the 1,500-gallon, No. 2 Fuel Tank.

removed 4/89 C.W.

APPENDIX A

EXCAVATION ZONE ASSESSMENT

EXCAVATION ZONE ASSESSMENT - 40 CFR 280.72

PROJECT NAME: Wolverine Gasket

PROJECT #: 21443

DATE: 2/12/90

METHOD OF CLOSURE:

Two (2) 10,000-gallon underground storage tanks were closed by removal from the ground on November 30, 1989. The tanks, which had filled with surface runoff following a previous attempt at removal, were pumped of their contents which were shipped for disposal. The recommended practices of API Bulletin 1604 were used for the removal.

NATURE OF STORED PRODUCT:

The products stored in the tanks were Methanol (Tank 1) and an ethanol-based phenolic resin (Tank 2). Both are flammable liquids; however, the tanks had been out of use since a fire destroyed the main portion of the plant in 1988. The tanks had been emptied of product; and the residues remaining in the tank were later found, upon cleaning, to have hardened with the liquid components having evaporated. MSDS sheets for both products are included in Appendix C.

BACKFILL/NATIVE SOILS:

No engineered backfill (sand) was apparent around the tanks. It is assumed that at the time of installation, native soils were used to backfill the tank excavation zone. Concrete ballast atop the tanks was used to hold the tanks in place. Both tanks were cradled in a stiff and moist bluish-gray clay.

GROUND WATER:

No appreciable amount of ground water was encountered during the removal. An intermittent amount of flow was observed at approximately 4.5 feet below grade but quickly diminished. The tank excavation zone was partially under the foundation wall of an adjacent building, and the source of the flow was from beneath the building structure. The flow had a stagnant odor and is believed to have been trapped runoff.

OTHER FACTORS:

A previous attempt had been made by Wolverine Gasket to remove the tanks, but it was aborted since the tanks were partially under the foundation wall of the adjacent building. All accessible piping had been removed previously. The fill lines and product supply lines are all routed beneath the floor slab of the building and were not visible. The tanks were removed without regard to damage of the building since the plant was being decommissioned due to fire damage.

ANALYTICAL RESULTS:

Laboratory analysis of the samples taken from the tank excavation zone is included in Appendix B. The samples collected were analyzed for methanol and phenols, the constituents common to the two products contained in the tanks. Only one sample each was taken from beneath each tank due to the restricted work area for the excavator and the procedure of having to ramp down to a lower level to reach all sides of the tanks. The collected samples were taken at the approximate center of each tank. The tanks shared a common excavation zone and a release from one tank could be expected to be found beneath both tanks.

FINDINGS:

Based upon observation of the tanks as recorded on the Tank Damage Record (Appendix D), no release from the tank shell of Tank 1 or 2 occurred. Soils surrounding the accessible piping for the tanks had been previously removed. The analytical results of the samples taken from the excavation zone do not indicate that a release from the tanks had occurred.

APPENDIX B
LABORATORY ANALYSIS

Analytic & Biological
Laboratories, Inc.

24350 INDOPLEX CIRCLE ■ FARMINGTON HILLS, MICHIGAN 48331 ■ PHONE: (313) 477-6666 ■ FAX: (313) 477-4604

12-14-89

SAMPLE NO: 33271
Page 1

DEC 21 1989

EDI ENGINEERING & SCIENCE
39209 WEST SIX MILE ROAD
LIVONIA, MI 48152

MARION JOHNSTON

SAMPLE DESCRIPTION: WOLVERENE GASKET TANK #1

RECEIVED: 12-12-89

OLD SAMPLE 33076

Methanol	<200	ppm
Phenols	<1	ppm

ANALYTIC & BIOLOGICAL LABORATORIES, INC.

Francis B. McLaughlin, FAIC
Director of Laboratories

Analytic & Biological
Laboratories, Inc.

24350 INDOPLEX CIRCLE ■ FARMINGTON HILLS, MICHIGAN 48331 ■ PHONE: (313) 477-6666 ■ FAX: (313) 477-4604

12-14-89

SAMPLE NO: 33272
Page 2

EDI ENGINEERING & SCIENCE
39209 WEST SIX MILE ROAD
LIVONIA, MI 48152

MARION JOHNSTON

SAMPLE DESCRIPTION: WOLVERENE GASKET TANK #2

RECEIVED: 12-12-89

OLD SAMPLE 33077

Methanol	<200	ppm
Phenols	<1	ppm

ANALYTIC & BIOLOGICAL LABORATORIES, INC.

Francis G. McLaughlin, FAIC
Director of Laboratories

Analytic & Biological
Laboratories, Inc.

JAN 02 1990

24350 INDOPLEX CIRCLE ■ FARMINGTON HILLS, MICHIGAN 48331 ■ PHONE: (313) 477-6666 ■ FAX: (313) 477-4604

12-27-89

SAMPLE NO: 33078

EDI ENGINEERING & SCIENCE
39209 WEST SIX MILE ROAD
LIVONIA, MI 48152

MARION JOHNSTON

SAMPLE DESCRIPTION: WOLVERENE GASKET TANK-1 SLUDGES

RECEIVED: 12-08-89

Phenols	5.8	ppm
METALS	.	
Arsenic	<0.050	ppm
Barium	1.16	ppm
Cadmium	0.0405	ppm
Copper	0.0386	ppm
Chromium	<0.021	ppm
Cyanide	<0.20	ppm
Lead	0.224	ppm
Mercury	<0.025	ppm
Selenium	<0.075	ppm
Silver	<0.050	ppm
Zinc	16.1	ppm
Acid Extraction 24 Hr.	.	
Flashpoint	No flash up to 200 deg.	F

ANALYTIC & BIOLOGICAL LABORATORIES, INC.

Francis B. McLaughlin, FAIC
Director of Laboratories

Analytic & Biological
Laboratories, Inc.

24350 INDOPLEX CIRCLE ■ FARMINGTON HILLS, MICHIGAN 48331 ■ PHONE: (313) 477-6666 ■ FAX: (313) 477-4604

JAN 0 2 1990

12-27-89

SAMPLE NO: 33079

EDI ENGINEERING & SCIENCE
39209 WEST SIX MILE ROAD
LIVONIA, MI 48152

MARION JOHNSTON

SAMPLE DESCRIPTION: WOLVERENE GASKET TANK-2 SLUDGES

RECEIVED: 12-08-89

Phenols	2,053	ppm
METALS	.	
Arsenic	<0.050	ppm
Barium	0.210	ppm
Cadmium	0.00740	ppm
Copper	0.331	ppm
Chromium	<0.007	ppm
Cyanide	<0.2	ppm
Lead	<0.126	ppm
Mercury	<0.025	ppm
Selenium	<0.075	ppm
Silver	<0.050	ppm
Zinc	6.91	ppm
Acid Extraction 24 Hr.	.	
Flashpoint	No flash up to 200 deg.	F

ANALYTIC & BIOLOGICAL LABORATORIES, INC.

Francis B. McLaughlin, FAIC
Director of Laboratories

APPENDIX C

MATERIAL SAFETY DATA SHEETS

72-62-7820-01

MATERIAL SAFETY DATA SHEET

Ashland Chemical Company
DIVISION OF ASHLAND OIL, INC.
P. O. BOX 2219, COLUMBUS, OHIO 43216 • (614) 889-3333
24-HOUR EMERGENCY TELEPHONE (606) 324-1133

Rev 2.3.5

000758

METHANOL

THIS MSDS COMPLIES WITH 29 CFR 1910.1200 (THE HAZARD COMMUNICATION STANDARD)

****

Product Name: METHANOL
CAS NUMBER: 67-56-1

Data Sheet No: 0001447-005
Prepared: 03/04/86
Supersedes: 04/02/85

05 50 027 9854710-001

WOLVERINE GASKET & MANU. CO.
2638 PRINCESS ST.
INKSTER MI 48141

PRODUCT: 7350000
INVOICE: 604116
INVOICE DATE: 07/05/88
TO: WOLVERINE GASKET & MANU. CO.
1900 W. PLEASANT
RIVER ROUGE MI 48218

ATTN: PLANT MGR./SAFETY DIR.

SECTION I - PRODUCT IDENTIFICATION

General or Generic ID: ALCOHOL

DOT Hazard Classification: FLAMMABLE LIQUID (173.115)

SECTION II - COMPONENTS

IF PRESENT, IARC, NTP AND OSHA CARCINOGENS ARE IDENTIFIED IN THIS SECTION
SEE DEFINITION PAGE FOR CLARIFICATION

INGREDIENT	% (by WT)	PEL	TLV	Note
METHYL ALCOHOL CAS #: 67-56-1	100	200 PPM - SKIN	200 PPM - SKIN	(1)

Notes:

(1) SKIN ABSORPTION MAY POTENTIALLY CONTRIBUTE TO THE OVERALL EXPOSURE TO THIS MATERIAL. APPROPRIATE MEASURES SHOULD BE TAKEN TO PREVENT ABSORPTION SO THAT THE TLV IS NOT INVALIDATED.

ACGIH - SHORT TERM EXPOSURE LIMIT (STEL) FOR METHYL ALCOHOL IS 250 PPM. NIOSH RECOMMENDS A LIMIT OF 200 PPM, 8-HOUR TWA; 600 PPM 15 MINUTE CEILING.

SECTION III - PHYSICAL DATA

Boiling Point	for PRODUCT	147.00 Deg F (63.88 Deg C) @ 760.00 mm Hg
Vapor Pressure	for PRODUCT	97.68 mm Hg @ 68.00 Deg F (20.00 Deg C)
Specific Vapor Density	AIR = 1	1.1
Specific Gravity		.793 @ 68.00 Deg F (20.00 Deg C)
Percent Volatiles		100.00%
Evaporation Rate	(N-BUTYL ACETATE = 1)	5.91

SECTION IV - FIRE AND EXPLOSION INFORMATION

FLASH POINT(TCC) 54.0 Deg F (12.2 Deg C)

EXPLOSIVE LIMIT (PRODUCT) LOWER - 6.0%

EXTINGUISHING MEDIA: WATER FOG OR CARBON DIOXIDE OR DRY CHEMICAL

HAZARDOUS DECOMPOSITION PRODUCTS: MAY FORM TOXIC MATERIALS:, CARBON DIOXIDE AND CARBON MONOXIDE, VARIOUS HYDROCARBONS, ETC.

FIREFIGHTING PROCEDURES: WEAR SELF-CONTAINED BREATHING APPARATUS WITH A FULL FACEPIECE OPERATED IN THE POSITVE PRESSURE DEMAND MODE WHEN FIGHTING FIRES.

SPECIAL FIRE & EXPLOSION HAZARDS: VAPORS ARE HEAVIER THAN AIR AND MAY TRAVEL ALONG THE GROUND OR MAY BE MOVED BY VENTILATION AND IGNITED BY PILOT LIGHTS, OTHER FLAMES, SPARKS, HEATERS, SMOKING, ELECTRIC MOTORS, STATIC DISCHARGE, OR OTHER IGNITION SOURCES AT LOCATIONS DISTANT FROM MATERIAL HANDLING POINT.

NEVER USE WELDING OR CUTTING TORCH ON OR NEAR DRUM (EVEN EMPTY) BECAUSE PRODUCT (EVEN JUST RESIDUE) CAN IGNITE EXPLOSIVELY.

ALL FIVE GALLON PAILS AND LARGER METAL CONTAINERS INCLUDING TANK CARS AND TANK TRUCKS SHOULD BE GROUNDED AND/OR BONDED WHEN MATERIAL IS TRANSFERRED.

NFPA CODES: HEALTH- 1 FLAMMABILITY- 3 REACTIVITY- 0

SECTION V - HEALTH HAZARD DATA

PERMISSIBLE EXPOSURE LEVEL 200 PPM - SKIN

THRESHOLD LIMIT VALUE 200 PPM - SKIN

SEE SECTION II

Ashland Chemical Company
DIVISION OF ASHLAND OIL, INC.
P. O. BOX 2219, COLUMBUS, OHIO 43216 • (614) 889-3333
24-HOUR EMERGENCY TELEPHONE (606) 324-1133

SECTION V - HEALTH HAZARD DATA (Continued)

EFFECTS OF ACUTE OVEREXPOSURE: FOR PRODUCT

EYES - CAN CAUSE SEVERE IRRITATION, REDNESS, TEARING, BLURRED VISION.
SKIN - PROLONGED OR REPEATED CONTACT CAN CAUSE MODERATE IRRITATION, DEFATTING, DERMATITIS.
BREATHING - EXCESSIVE INHALATION OF VAPORS CAN CAUSE NASAL AND RESPIRATORY IRRITATION, CENTRAL NERVOUS SYSTEM EFFECTS INCLUDING DIZZINESS, WEAKNESS, FATIGUE, NAUSEA, HEADACHE AND POSSIBLE UNCONSCIOUSNESS, AND EVEN DEATH.
SWALLOWING - CAN CAUSE GASTROINTESTINAL IRRITATION, NAUSEA, VOMITING, DIARRHEA, BLINDNESS AND DEATH.

FIRST AID:

IF ON SKIN: THOROUGHLY WASH EXPOSED AREA WITH SOAP AND WATER. REMOVE CONTAMINATED CLOTHING. LAUNDER CONTAMINATED CLOTHING BEFORE RE-USE.

REMOVE CONTAMINATED SHOES PROMPTLY. DISCARD SHOES SATURATED WITH THIS PRODUCT.

IF IN EYES: FLUSH WITH LARGE AMOUNTS OF WATER, LIFTING UPPER AND LOWER LIDS OCCASIONALLY, GET MEDICAL ATTENTION.

IF SWALLOWED: IMMEDIATELY DRINK TWO GLASSES OF WATER AND INDUCE VOMITING BY EITHER GIVING IPECAC SYRUP OR BY PLACING FINGER AT BACK OF THROAT. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. GET MEDICAL ATTENTION IMMEDIATELY.

IF BREATHED: IF AFFECTED, REMOVE INDIVIDUAL TO FRESH AIR. IF BREATHING IS DIFFICULT, ADMINISTER OXYGEN. IF BREATHING HAS STOPPED GIVE ARTIFICIAL RESPIRATION. KEEP PERSON WARM, QUIET AND GET MEDICAL ATTENTION.

PRIMARY ROUTE(S) OF ENTRY:

INHALATION, SKIN ABSORPTION, SKIN CONTACT

EFFECTS OF CHRONIC OVEREXPOSURE: FOR PRODUCT

OVEREXPOSURE TO THIS MATERIAL (OR ITS COMPONENTS) HAS APPARENTLY BEEN FOUND TO CAUSE THE FOLLOWING EFFECTS IN LABORATORY ANIMALS:, LIVER ABNORMALITIES, KIDNEY DAMAGE, EYE DAMAGE, LUNG DAMAGE, SPLEEN DAMAGE, BRAIN DAMAGE, NERVOUS SYSTEM DAMAGE

OVEREXPOSURE TO THIS MATERIAL (OR ITS COMPONENTS) HAS BEEN SUGGESTED AS A CAUSE OF THE FOLLOWING EFFECTS IN HUMANS:, EYE DAMAGE

SECTION VI - REACTIVITY DATA

HAZARDOUS POLYMERIZATION: CANNOT OCCUR

STABILITY: STABLE

INCOMPATIBILITY: AVOID CONTACT WITH:, STRONG OXIDIZING AGENTS.

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

SMALL SPILL: ELIMINATE ALL SOURCES OF IGNITION SUCH AS FLARES, FLAMES (INCLUDING PILOT LIGHTS), AND ELECTRICAL SPARKS.

ABSORB LIQUID ON PAPER, VERMICULITE, FLOOR ABSORBENT, OR OTHER ABSORBENT MATERIAL AND TRANSFER TO HOOD.

LARGE SPILL: ELIMINATE ALL IGNITION SOURCES (FLARES, FLAMES INCLUDING PILOT LIGHTS, ELECTRICAL SPARKS). PERSONS NOT WEARING PROTECTIVE EQUIPMENT SHOULD BE EXCLUDED FROM AREA OF SPILL UNTIL CLEAN-UP HAS BEEN COMPLETED. STOP SPILL AT SOURCE, DIKE AREA OF SPILL TO PREVENT SPREADING, PUMP LIQUID TO SALVAGE TANK. REMAINING LIQUID MAY BE TAKEN UP ON SAND, CLAY, EARTH, FLOOR ABSORBENT, OR OTHER ABSORBENT MATERIAL AND SHOVELED INTO CONTAINERS.

PREVENT RUN-OFF TO SEWERS, STREAMS OR OTHER BODIES OF WATER. IF RUN-OFF OCCURS, NOTIFY PROPER AUTHORITIES AS REQUIRED, THAT A SPILL HAS OCCURED.

WASTE DISPOSAL METHOD:

SMALL SPILL: ALLOW VOLATILE PORTION TO EVAPORATE IN HOOD. ALLOW SUFFICIENT TIME FOR VAPORS TO COMPLETELY CLEAR HOOD DUCT WORK. DISPOSE OF REMAINING MATERIAL IN ACCORDANCE WITH APPLICABLE REGULATIONS.

LARGE SPILL: DESTROY BY LIQUID INCINERATION.

CONTAMINATED ABSORBENT MAY BE DEPOSITED IN A LANDFILL IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS.

SECTION VIII - PROTECTIVE EQUIPMENT TO BE USED

RESPIRATORY PROTECTION: IF WORKPLACE EXPOSURE LIMIT(S) OF PRODUCT OR ANY COMPONENT IS EXCEEDED (SEE SECTION II), A NIOSH/MSHA APPROVED AIR SUPPLIED RESPIRATOR IS ADVISED IN ABSENCE OF PROPER ENVIRONMENTAL CONTROL. OSHA REGULATIONS ALSO PERMIT OTHER NIOSH/MSHA RESPIRATORS (NEGATIVE PRESSURE TYPE) UNDER SPECIFIED CONDITIONS (SEE YOUR SAFETY EQUIPMENT SUPPLIER). ENGINEERING OR ADMINISTRATIVE CONTROLS SHOULD BE IMPLEMENTED TO REDUCE EXPOSURE.

VENTILATION: PROVIDE SUFFICIENT MECHANICAL (GENERAL AND/OR LOCAL EXHAUST) VENTILATION TO MAINTAIN EXPOSURE BELOW TLV(S).

PROTECTIVE GLOVES: WEAR RESISTANT GLOVES SUCH AS:, NEOPRENE

EYE PROTECTION: CHEMICAL SPLASH GOGGLES IN COMPLIANCE WITH OSHA REGULATIONS ARE ADVISED; HOWEVER, OSHA REGULATIONS ALSO PERMIT OTHER TYPE SAFETY GLASSES. (CONSULT YOUR SAFETY EQUIPMENT SUPPLIER)

OTHER PROTECTIVE EQUIPMENT: TO PREVENT REPEATED OR PROLONGED SKIN CONTACT, WEAR IMPERVIOUS CLOTHING AND BOOTS.

AROFENE 895-E-50

ACCEPTED BY O.S.H.A. AS ESSENTIALLY SIMILIAR TO O.S.H.A. FORM 20

24-HOUR EMERGENCY TELEPHONE: 606-329-1133 (LOCATED AT ASHLAND, KENTUCKY)

ASHLAND PRODUCT NAME: AROFENE 895-E-50

DATA SHEET NO: 001C0083-003
LATEST REVISION DATE: 01/83-83017

SECTION I-PRODUCT IDENTIFICATION

GENERAL OR GENERIC ID: PHENOLIC RESIN

HAZARD CLASSIFICATION: (03) FLAMMABLE LIQUID (173.115)

SECTION II-HAZARDOUS COMPONENTS

INGREDIENT	PERCENT	PEL	TLV		
FREE PHENOL	10-15	5	5	PPM - SKIN	(1)
FREE FORMALDEHYDE	<1	3	2	PPM - CEILING	
ETHANOL	25-30	1000	1000	PPM	

(1): SKIN ABSORPTION MAY POTENTIALLY CONTRIBUTE TO THE OVERALL EXPOSURE TO THIS MATERIAL. APPROPRIATE MEASURES SHOULD BE TAKEN TO PREVENT ABSORPTION SO THAT THE TLV IS NOT INVALIDATED.

SECTION III-PHYSICAL DATA

PROPERTY	REFINEMENT	MEASUREMENT
INITIAL BOILING POINT	FOR COMPONENT(25-30 %)	173.30 DEG F (78.50 DEG C) @ 760.00 MMHG
VAPOR PRESSURE	FOR COMPONENT(25-30 %)	40.00 MMHG @ 68.00 DEG F (20.00 DEG C)
VAPOR DENSITY		HEAVIER THAN AIR
SPECIFIC GRAVITY		1.055 - 1.075 @ 77.00 DEG F (25.00 DEG C)
PERCENT VOLATILES		45-50 %
EVAPORATION RATE		SLOWER THAN ETHER

SECTION IV-FIRE AND EXPLOSION DATA

FLASH POINT: 20.00 - 73.00 DEG F (-6.66 - 22.77 DEG C)

EXPLOSIVE LIMIT (LOWEST VALUE OF COMPONENT) LOWER - 3.3%

EXTINGUISHING MEDIA: ALCOHOL FOAM OR WATER FOG OR CARBON DIOXIDE OR DRY CHEMICAL

HAZARDOUS DECOMPOSITION PRODUCTS: MAY FORM TOXIC MATERIALS:, CARBON DIOXIDE AND CARBON MONOXIDE, VARIOUS HYDROCARBONS, ETC.

SPECIAL FIREFIGHTING PROCEDURES: WATER OR FOAM MAY CAUSE FROTHING WHICH CAN BE VIOLENT AND POSSIBLY ENDANGER THE LIFE OF THE FIREFIGHTER, ESPECIALLY IF SPRAYED INTO CONTAINERS OF HOT, BURNING LIQUID. SELF-CONTAINED BREATHING APPARATUS WITH A FULL FACEPIECE OPERATED IN PRESSURE-DEMAND OR OTHER POSITIVE PRESSURE MODE.

UNUSUAL FIRE & EXPLOSION HAZARDS: VAPORS ARE HEAVIER THAN AIR AND MAY TRAVEL ALONG THE GROUND OR MAY BE MOVED BY VENTILATION AND IGNITED BY PILOT LIGHTS, OTHER FLAMES, SPARKS, HEATERS, SMOKING, ELECTRIC MOTORS, STATIC DISCHARGE, OR OTHER IGNITION SOURCES AT LOCATIONS DISTANT FROM MATERIAL HANDLING POINT.
NEVER USE WELDING OR CUTTING TORCH ON OR NEAR DRUM (EVEN EMPTY) BECAUSE PRODUCT (EVEN JUST RESIDUE) CAN IGNITE EXPLOSIVELY.

SECTION V-HEALTH HAZARD DATA

PERMISSIBLE EXPOSURE LEVEL: NOT ESTABLISHED FOR PRODUCT. SEE SECTION II.

EFFECTS OF OVEREXPOSURE: FOR PRODUCT

EYES - CAN CAUSE SEVERE IRRITATION, REDNESS, TEARING, BLURRED VISION.
SKIN - CAN CAUSE REDDENING, IRRITATION, DERMATITIS, POSSIBLE SENSITIZATION.
BREATHING - EXCESSIVE INHALATION OF VAPORS CAN CAUSE NASAL AND RESPIRATORY IRRITATION, DIZZINESS, WEAKNESS, FATIGUE, NAUSEA, HEADACHE, POSSIBLE UNCONSCIOUSNESS, AND EVEN ASPHYXIATION.
SWALLOWING - CAN CAUSE GASTROINTESTINAL IRRITATION, NAUSEA, VOMITING, AND DIARRHEA.

FIRST AID:

CONTINUED ON PAGE: 2

SECTION V-HEALTH HAZARD DATA (CONTINUED)

IF ON SKIN: THOROUGHLY WASH EXPOSED AREA WITH SOAP AND WATER. IF IRRITATION OR RASH DEVELOPS, GET MEDICAL ATTENTION. REMOVE CONTAMINATED CLOTHING. LAUNDER CONTAMINATED CLOTHING BEFORE RE-USE.

IF IN EYES: FLUSH WITH LARGE AMOUNTS OF WATER, LIFTING UPPER AND LOWER LIDS OCCASIONALLY, GET MEDICAL ATTENTION.

IF SWALLOWED: GIVE TWO GLASSES OF WATER; INDUCE VOMITING IMMEDIATELY BY STICKING FINGER DOWN THROAT. CALL A PHYSICIAN. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

IF BREATHED: IF AFFECTED, REMOVE INDIVIDUAL TO FRESH AIR. IF BREATHING IS DIFFICULT, ADMINISTER OXYGEN. IF BREATHING HAS STOPPED GIVE ARTIFICIAL RESPIRATION. KEEP PERSON WARM, QUIET AND GET MEDICAL ATTENTION.

SECTION VI-REACTIVITY DATA

HAZARDOUS POLYMERIZATION: CANNOT OCCUR

STABILITY: STABLE -- AVOID HEAT, OPEN FLAME, AND PROLONGED STORAGE AT ELEVATED TEMPERATURES.

INCOMPATABILITY: AVOID CONTACT WITH: , STRONG ALKALIES., STRONG MINERAL ACIDS.

SECTION VII-SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

SMALL SPILL: ABSORB LIQUID ON PAPER, VERMICULITE, FLOOR ABSORBENT, OR OTHER ABSORBENT MATERIAL AND TRANSFER TO HOOD.

LARGE SPILL: ELIMINATE ALL IGNITION SOURCES (FLARES, FLAMES INCLUDING PILOT LIGHTS, ELECTRICAL SPARKS). PERSONS NOT WEARING PROTECTIVE EQUIPMENT SHOULD BE EXCLUDED FROM AREA OF SPILL UNTIL CLEAN-UP HAS BEEN COMPLETED. STOP SPILL AT SOURCE, DIKE AREA OF SPILL TO PREVENT SPREADING, PUMP LIQUID TO SALVAGE TANK. REMAINING LIQUID MAY BE TAKEN UP ON SAND, CLAY, EARTH, FLOOR ABSORBENT, OR OTHER ABSORBENT MATERIAL AND SHOVELED INTO CONTAINERS.

WASTE DISPOSAL METHOD:

SMALL SPILL: ALLOW VOLATILE PORTION TO EVAPORATE IN HOOD. ALLOW SUFFICIENT TIME FOR VAPORS TO COMPLETELY CLEAR HOOD DUCT WORK. DISPOSE OF REMAINING MATERIAL IN ACCORDANCE WITH APPLICABLE REGULATIONS.

LARGE SPILL: DESTROY BY LIQUID INCINERATION. CONTAMINATED ABSORBENT MAY BE DEPOSITED IN A LANDFILL IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS.

SECTION VIII-PROTECTIVE EQUIPMENT TO BE USED

RESPIRATORY PROTECTION: IF TLV OF THE PRODUCT OR ANY COMPONENT IS EXCEEDED, A NIOSH/MSHA JOINTLY APPROVED AIR SUPPLIED RESPIRATOR IS ADVISED IN ABSENCE OF PROPER ENVIRONMENTAL CONTROL. OSHA REGULATIONS ALSO PERMIT OTHER NIOSH/MSHA RESPIRATORS UNDER SPECIFIED CONDITIONS (SEE YOUR SAFETY EQUIPMENT SUPPLIER). ENGINEERING OR ADMINISTRATIVE CONTROLS SHOULD BE IMPLEMENTED TO REDUCE EXPOSURE.

VENTILATION: PROVIDE SUFFICIENT MECHANICAL (GENERAL AND/OR LOCAL EXHAUST) VENTILATION TO MAINTAIN EXPOSURE BELOW TLV(S).

PROTECTIVE GLOVES: WEAR RESISTANT GLOVES SUCH AS:, NEOPRENE, BUNA-N

EYE PROTECTION: CHEMICAL SPLASH GOGGLES IN COMPLIANCE WITH OSHA REGULATIONS ARE ADVISED; HOWEVER, OSHA REGULATIONS ALSO PERMIT OTHER TYPE SAFETY GLASSES. (CONSULT YOUR SAFETY EQUIPMENT SUPPLIER)

OTHER PROTECTIVE EQUIPMENT: NORMAL WORK CLOTHING COVERING ARMS AND LEGS.

SECTION IX-SPECIAL PRECAUTIONS OR OTHER COMMENTS

CONTAINERS OF THIS MATERIAL MAY BE HAZARDOUS WHEN EMPTIED. SINCE EMPTIED CONTAINERS RETAIN PRODUCT RESIDUES (VAPOR, LIQUID, AND/OR SOLID), ALL HAZARD PRECAUTIONS GIVEN IN THIS DATA SHEET MUST BE OBSERVED.

BECAUSE OF THE HEAT REACTIVE NATURE OF THIS PRODUCT, STORAGE AT TEMPERATURES OF 40-80 DEG F IS RECOMMENDED.

A 24-MONTH STUDY SPONSORED BY THE CHEMICAL INDUSTRY INSTITUTE OF TOXICOLOGY (CIIT) HAS FOUND THAT FORMALDEHYDE CAUSES NASAL TUMORS IN RATS. THERE WERE TWO TUMORS FOUND IN 235 RATS AT LEVELS OF 5.6 PPM, AND TUMORS IN 103 OF 232 RATS AT LEVELS OF 14.3 PPM.

OVEREXPOSURE TO COMPONENT HAS APPARENTLY BEEN FOUND TO CAUSE THE FOLLOWING EFFECTS IN LABORATORY ANIMALS:, LIVER ABNORMALITIES

OVEREXPOSURE TO COMPONENT HAS BEEN SUGGESTED AS A CAUSE OF THE FOLLOWING EFFECTS IN HUMANS:, LIVER ABNORMALITIES, EYE DAMAGE

THE INFORMATION ACCUMULATED HEREIN IS BELIEVED TO BE ACCURATE BUT IS NOT WARRANTED TO BE WHETHER ORIGINATING WITH ASHLAND OR NOT. RECIPIENTS ARE ADVISED TO CONFIRM IN ADVANCE OF NEED THAT THE INFORMATION IS CURRENT, APPLICABLE, AND SUITABLE TO THEIR CIRCUMSTANCES.

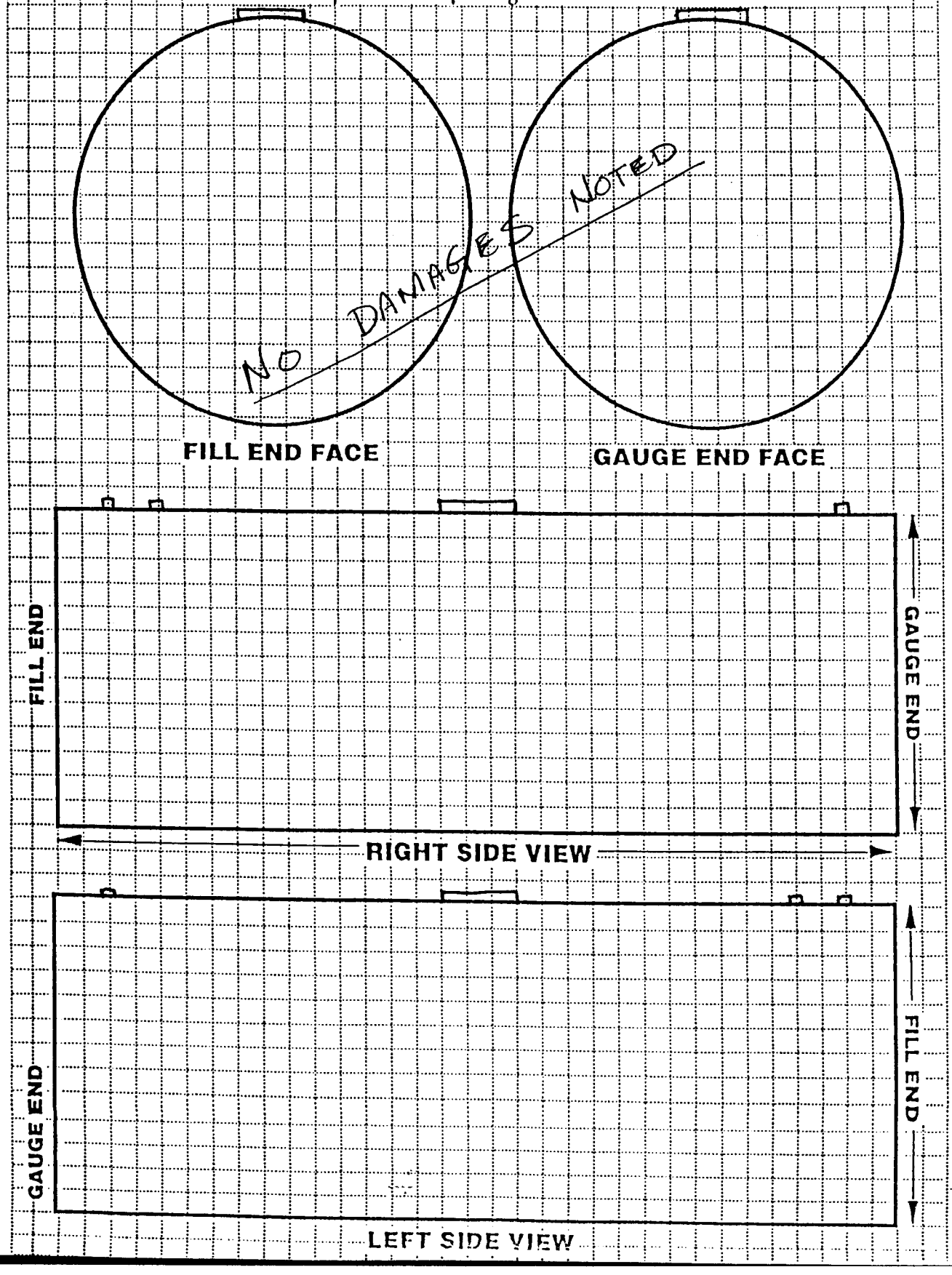
APPENDIX D

TANK DAMAGE RECORD

TANK DAMAGE RECORD

Computed by: MOJ Subject: UST REMOVAL Sheet 1 of _____
Site: 1100 W. PLEASANT Tank #: 1 - METHANOL Job #: 21443
Client: WOLVERINE GASKET Date: 11/30/89

Note: Indicate Dimensions & Location Of Damage, Holes, Fill Pipes, Vent Pipes & All Openings

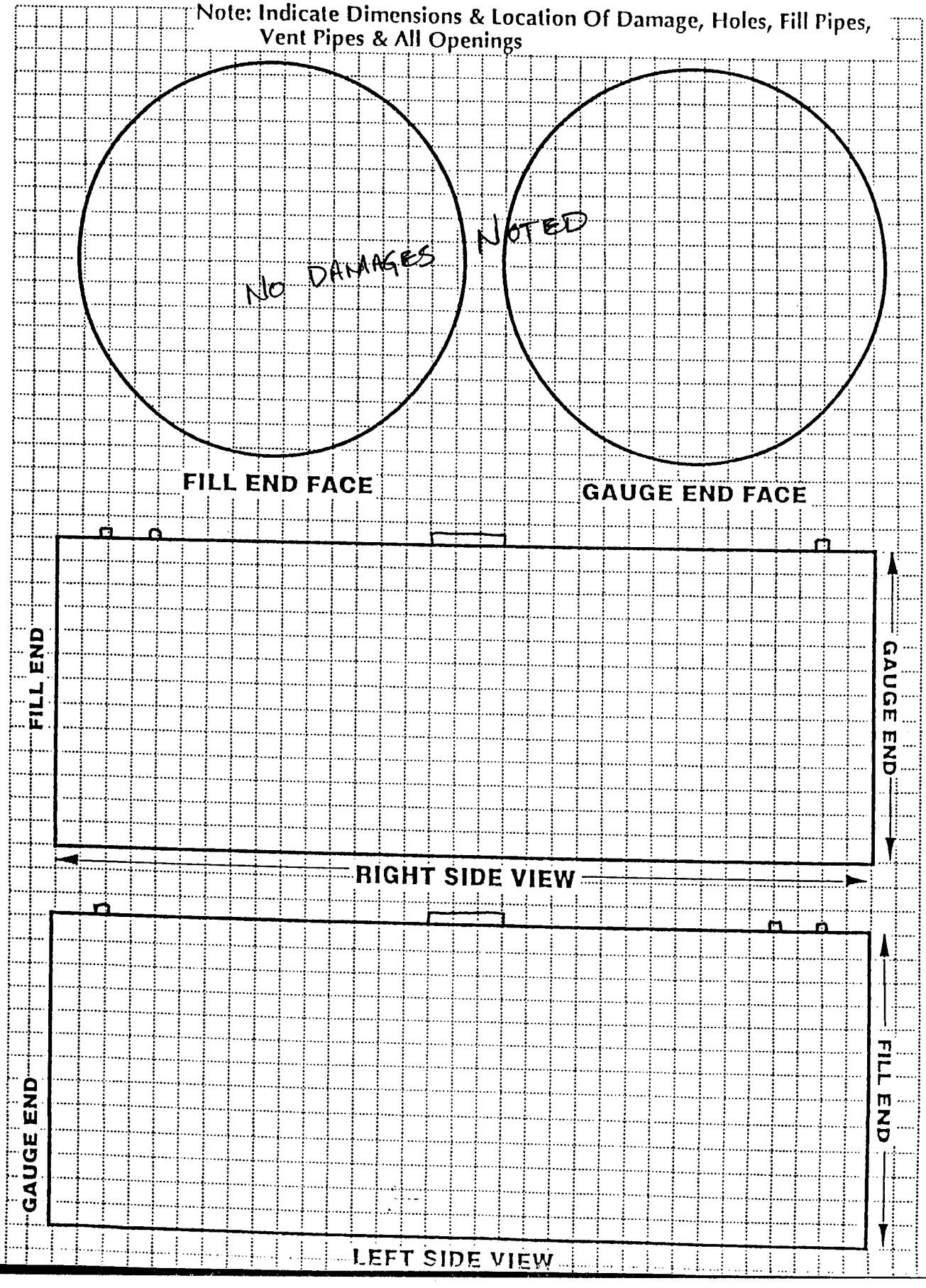


MI0013240

TANK DAMAGE RECORD

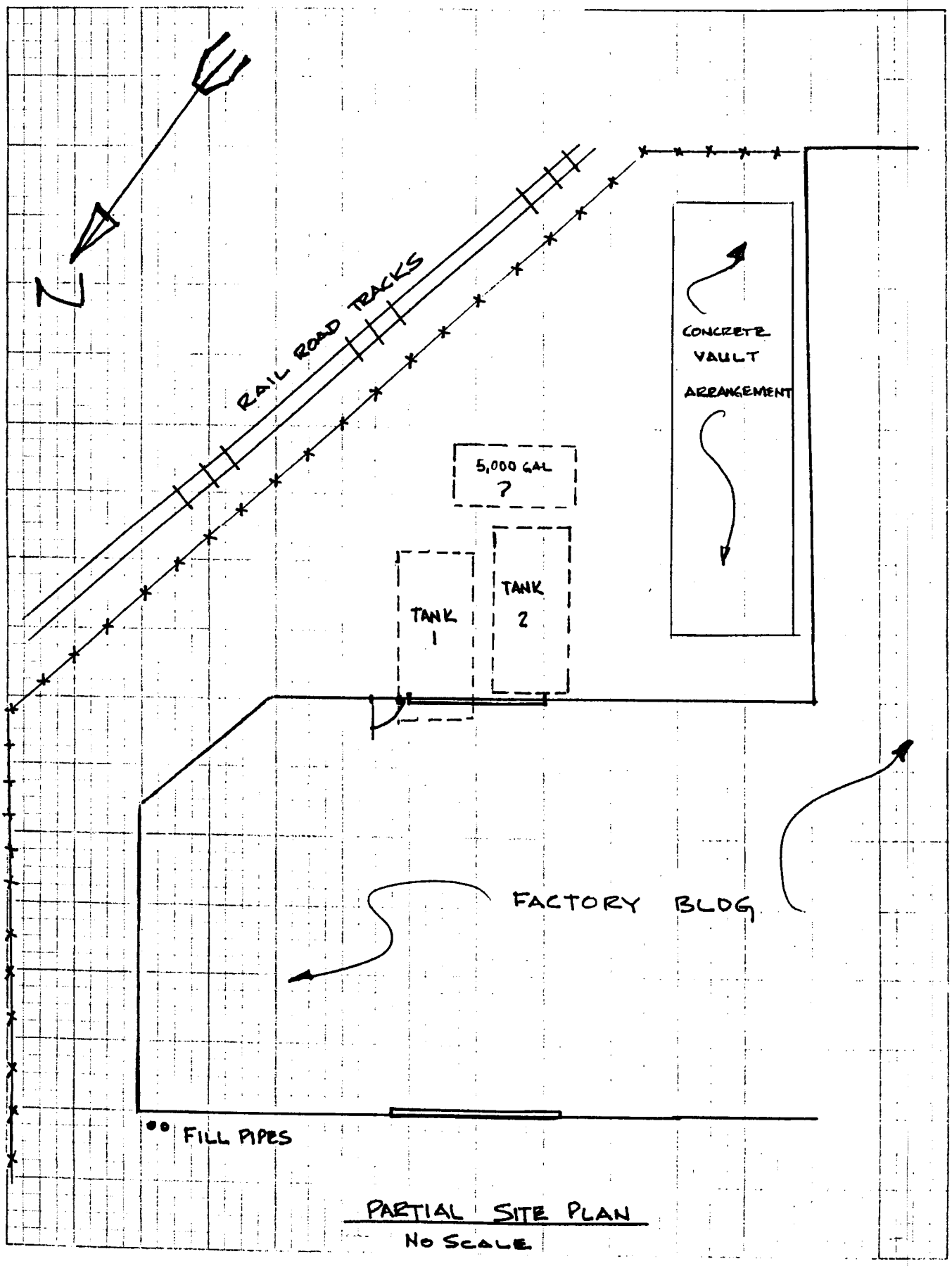
Computed by: MDJ Subject: UST REMOVAL Sheet 2 of _____
Site: 1700 W. PLEASANT Tank #: 2- PHENOLIC RESIN Job #: 21443
Client: WOLVERINE GASKET Date: 11/30/89

Note: Indicate Dimensions & Location Of Damage, Holes, Fill Pipes, Vent Pipes & All Openings



Calculation Sheet

Computed by MOJ
Checked by _____
Subject UST REMOVAL
Client WOLVERINE
Sheet 3 of _____
Job No. 21143
Date 11/30/89



PARTIAL SITE PLAN
NO SCALE

APPENDIX E

TANK DISPOSAL CERTIFICATE

ENVIRONMENTAL CLEANUP INC.

Tanks are considered non-hazardous and are rendered useless by cutting a hole in the end of the tank for cleaning.

Wolverine Gasket Company

Tanks are released from Young's Environmental Cleanup, Inc. on December 5 19 89 to Rithman Scrap Pro. located at 6301 N. Dort Hwy Flint Mich.

(2) 10,000 Gallon tanks

YOUNG'S ENVIRONMENTAL CLEANUP, INC.

By: Robert Johnson 12/5/89 Date

By: [signature] 12-5-89 Date

APPENDIX F

PHOTOGRAPHS

Calculation Sheet

Computed by _____ Subject UST REMOVAL Sheet ___ of _____

Checked by _____ Job No 21443

Client WOLVERINE Date 11/30/89

PUMPING TANK 2

BUILDING FOUNDATION

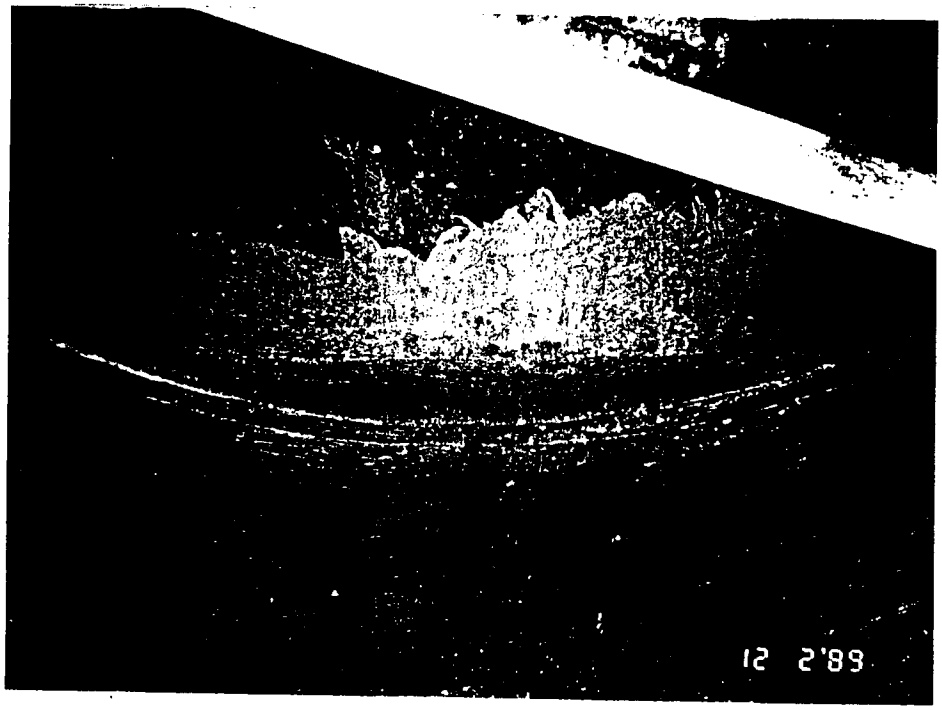
Calculation Sheet

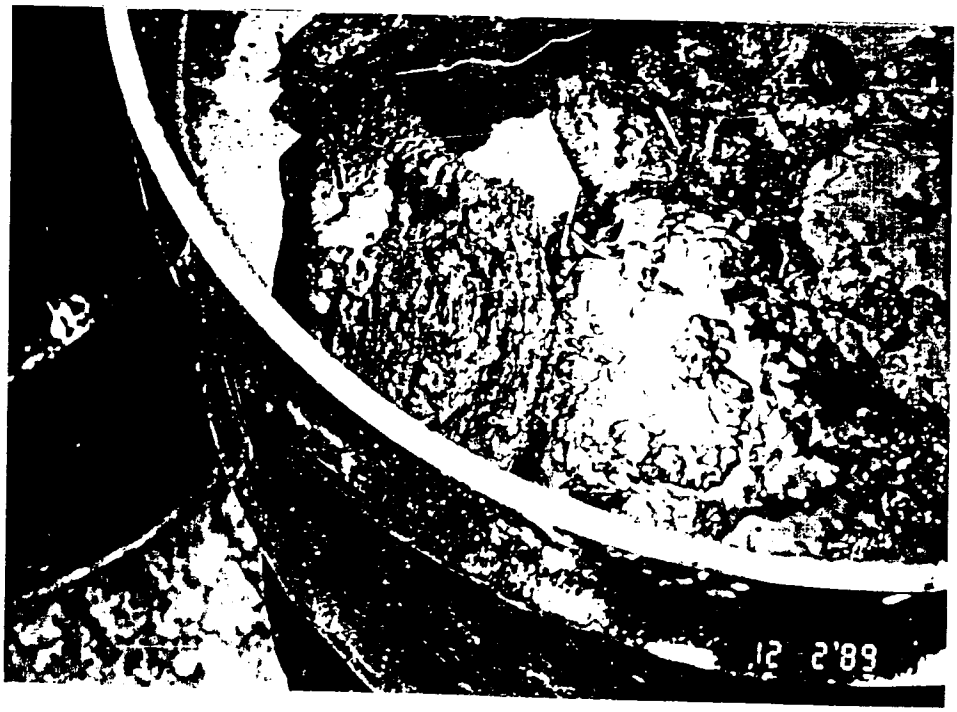
Computed by _____
Checked by _____

Subject TANK CLEANING
TANK #1

Client WOLVERINE

Sheet ___ of ___
Job No 21493
Date 12/7/89





Calculation Sheet

Computed by _____
Checked by _____

Subject TANK CLEANING
TANK 2 - PHENOLIC RESIN
Client WOLVERINE

Sheet ___ of _____
Job No. 21443
Date 12/2/89

313-562-6400
FAX 313-562-8248
TWX-810-221-5124

WOLVERINE GASKET & MFG. CO.

2638 PRINCESS STREET • INKSTER, MICHIGAN 48141-2398

[redacted]

Michigan State Police
State Fire Marshal Division
UST Program
7150 Harris Dr
Lansing, MI 48913

Re: Underground Storage Tank Removal and Site Assessment

Attn: UST Program

Your office was notified March 17, 1989 of plans [redacted] The River Rouge fire marshal, Timothy Guarino, inspected the site and approved abandonment in place. A copy of his letter is enclosed. The tanks have not yet been filled with a solid inert material. Future plans for the building are not definite. It is a possibility that the building will be torn down, which would allow us to remove the tanks. [redacted]

[redacted] Some pitting of the surface, but no holes were observed. Soil samples were taken from each end of the pit bottom.

[redacted] 24 to remove tank 1, a 5000 [redacted] inspection of the removed tank showed two one-half inch diameter holes. Soil samples were taken at each end of the pit and at the exposed end of tank 3.

The samples were analyzed for the products or product components that had been stored in the tanks: methanol, ethanol, isopropyl alcohol and total phenol. After phenol was determined to be present, further sampling was conducted with a soil core/auger sampler on May 9 to identify possible vertical contamination. Background samples were also taken at this time. Sample location descriptions and analytical data are enclosed.

If you have any questions concerning the removal or site assessment please contact me at 562-6400.

Sincerely,

Cindy Wentzel

Cindy Wentzel
Plant Chemist

CKW/c

enc.

cc: Dorsey Anderson

CHEMICALS USED IN FAB-AUTO'S MIX ROOM

The Underground Storage Tanks:

1500 gal. UST	Isopropanol
Tank 1-10,000 gal UST	Inksol(Isopropanol based)
Tank 2-10,000 gal UST	Methanol
Tank 3- 5000 gal. UST	Cured phenolic resin

The Resin Mix Room Tanks:

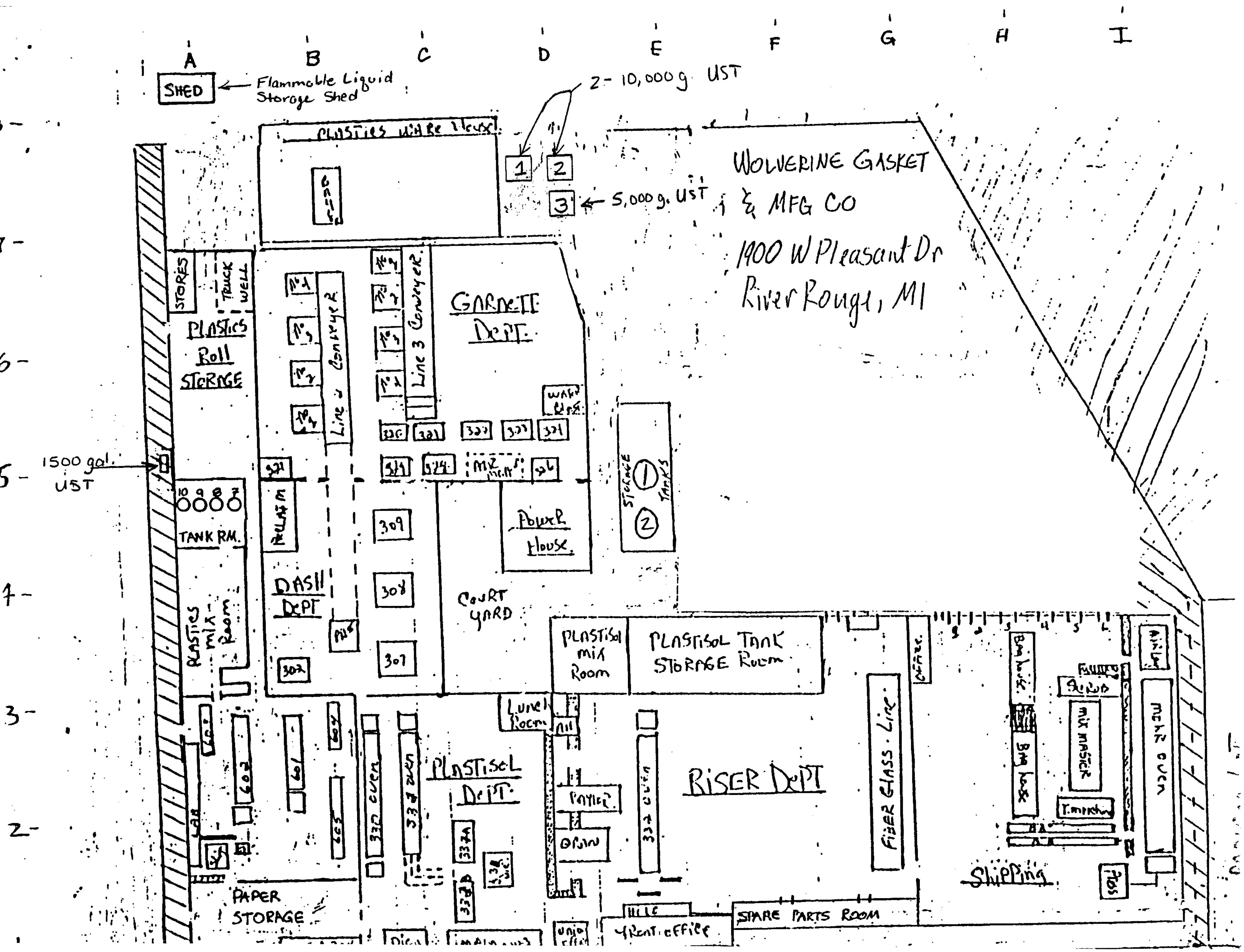
Tank 7	Arofene 295-5-50 (phenolic resin)
Tank 8	Arofene 295-5-50 (phenolic resin)
Tank 9	GP5137 - Phenol formaldehyde resin (N alcohol-water solution)
Tank 10	Unknown phenolic resin 4133

The Flammable Liquid Storage Shed:

Plyophen 23-010 (phenolic resin)

Phenol formaldehyde resin CR-3703

Note: See attached diagram for location of tanks and buildings.



WOLVERINE GASKET
& MFG CO
1900 W Pleasant Dr
River Rouge, MI
SHED
Flammable Liquid Storage Shed
2- 10,000 g UST
5,000 g. UST
1500 gal. UST
PLASTICS WARE HOUSE
STORES
TRUCK WELL
PLASTICS Roll STORAGE
TANK RM.
PLASTICS mix Room
DASH DEPT
RECLAIM
Line 2 Conveyer
Line 3 Conveyer
GARNETT DEPT
POWER HOUSE
COURT YARD
STORAGE TANKS
309
308
307
PLASTISOL mix Room
PLASTISOL TANK STORAGE Room
PLASTISOL DEPT
330 oven
332 oven
337A
LAB
601
602
604
605
PAPER STORAGE
Lunch Room
DRUM
RISER DEPT
FIBER GLASS Line
OFFICE
Front office
SPARE PARTS ROOM
Shipping
mix master

MI0013252

EAGLE-PICHER
AUTOMOTIVE GROUP

WOLVERINE GASKET DIVISION
FAX TRANSMISSION COVER SHEET

DATE: 03-19-92

TIME: 9 20/AM

FROM: CHERYL JAMES

TO: MIKE DIXON

ATT: RIVER ROUGE FACILITY

NUMBER OF PAGES INCLUDING COVER SHEET: 6

COMMENTS: RECEIVED THIS INFORMATION THIS MORNING ON UST. THIS INFORMATION DOES INDICATE THE PRESENCE OF 5 UST AS WELL AS REMOVAL. THE ORIGINAL COPY WILL BE MAILED TO YOUR ATTENTION TODAY. COPIES OF THIS SPECIFIC ISSUE WILL BE FORWARDED TO ANDERSON FOR FURTHER DISTRIBUTION. ADDITION INSTRUCTION, IF ANY, PLEASE TELEPHONE. Cheryl

---

NOTE: IF YOU DO NOT RECEIVE ALL PAGES, OR TRANSMISSION IS NOT LEGIBLE, PLEASE CALL BARBARA BELOW 313-562-6400 EXT 296

WOLVERINE GASKET DIVISION
2638 PRINCESS STREET • INKSTER, MICHIGAN 48141 • 313-562-6400 • FAX: 313-562-8248 • TWX: 810-221-5124

MAR 1992

MI0013253

4-11

Notification for Underground Storage Tanks

FORM APPROVED
OMB NO. 2050-0068
APPROVAL EXPIRES 9-30-91

Michigan State Police
FIRE MARSHALL DIVISION, UST PROGRAM
7150 Harris Drive
Lansing, MI. 48913

RECEIVED
MAR 14 1990
FIRE MARSHAL DIVISION
LANSING, MICHIGAN

STATE USE ONLY
Number 18260
Date received CB 6/7/90

GENERAL INFORMATION

Notification is required by Federal law for all underground tanks that have been used to store regulated substances since January 1, 1974, that are in the ground as of May 8, 1986, or that are brought into use after May 8, 1986. The information requested is required by Section 9002 of the Resource Conservation and Recovery Act, (RCRA), as amended.

The primary purpose of this notification program is to locate and evaluate underground tanks that store or have stored petroleum or hazardous substances. It is expected that the information you provide will be based on reasonably available records, or, in the absence of such records, your knowledge, belief, or recollection.

Who Must Notify? Section 9002 of RCRA, as amended, requires that, unless exempted, owners of underground tanks that store regulated substances must notify designated State or local agencies of the existence of their tanks. Owner means—
(a) in the case of an underground storage tank in use on November 8, 1984, or brought into use after that date, any person who owns an underground storage tank used for the storage, use, or dispensing of regulated substances, and
(b) in the case of any underground storage tank in use before November 8, 1984, but no longer in use on that date, any person who owned such tank immediately before the discontinuation of its use.

What Tanks Are Included? Underground storage tank is defined as any one or combination of tanks that (1) is used to contain an accumulation of "regulated substances," and (2) whose volume (including connected underground piping) is 10% or more beneath the ground. Some examples are underground tanks storing: 1. gasoline, used oil, or diesel fuel, and 2. industrial solvents, pesticides, herbicides or fumigants.

What Tanks Are Excluded? Tanks removed from the ground are not subject to notification. Other tanks excluded from notification are:
1. farm or residential tanks of 1,100 gallons or less capacity used for storing motor fuel for noncommercial purposes;
2. tanks used for storing heating oil for consumptive use on the premises where stored;
3. septic tanks;
4. pipeline facilities (including gathering lines) regulated under the Natural Gas Pipeline Safety Act of 1968, or the Hazardous Liquid Pipeline Safety Act of 1979, or which is an intrastate pipeline facility regulated under State laws;
5. surface impoundments, pits, ponds, or lagoons;
6. storm water or waste water collection systems;
7. flow-through process tanks;
8. liquid traps or associated gathering lines directly related to oil or gas production and gathering operations;
9. storage tanks situated in an underground area (such as a basement, cellar, mineworking, drift, shaft, or tunnel) if the storage tank is situated upon or above the surface of the floor.

What Substances Are Covered? The notification requirements apply to underground storage tanks that contain regulated substances. This includes any substance defined as hazardous in section 101 (14) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), with the exception of those substances regulated as hazardous waste under Subtitle C of RCRA. It also includes petroleum, e.g., crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute).

Where To Notify? Completed notification forms should be sent to the address given at the top of this page.

When To Notify? 1. Owners of underground storage tanks in use or that have been taken out of operation after January 1, 1974, but still in the ground, must notify by May 8, 1986. 2. Owners who bring underground storage tanks into use after May 8, 1986, must notify within 30 days of bringing the tanks into use.

Penalties: Any owner who knowingly fails to notify or submits false information shall be subject to a civil penalty not to exceed $10,000 for each tank for which notification is not given or for which false information is submitted.

INSTRUCTIONS

Please type or print in ink all items except "signature" in Section V. This form must be completed for each location containing underground storage tanks. If more than 5 tanks are owned at this location, photocopy the reverse side, and staple continuation sheets to this form.

Indicate number of continuation sheets attached: ☐

I. OWNERSHIP OF TANK(S)

Owner Name (Corporation, Individual, Public Agency, or Other Entity)
WOLVERINE GASKET & MANUFACTURING CO

Street Address
1900 W PLEASANT

County
WAYNE

City: RIVER ROUGE | State: MI | ZIP Code: 48218

Area Code: (313) | Phone Number: 562-6400

Type of Owner (Mark all that apply ☒)
- ☒ Current
- ☐ Former
- ☐ State or Local Gov't
- ☐ Federal Gov't (GSA facility I.D. no. _____)
- ☒ Private or Corporate
- ☐ Ownership uncertain

II. LOCATION OF TANK(S)

(If same as Section 1, mark box here ☒)

Facility Name or Company Site Identifier, as applicable

Street Address or State Road, as applicable

County

City (nearest) | State | ZIP Code

Indicate number of tanks at this location: 0

Mark box here if tank(s) are located on land within an Indian reservation or on other Indian trust lands: ☐

III. CONTACT PERSON AT TANK LOCATION

Name (If same as Section I, mark box here ☐): Cindy Wentzel
Job Title: Plant Chemist
Area Code: 313
Phone Number: 562-6400

IV. TYPE OF NOTIFICATION

☒ Mark box here only if this is an amended or subsequent notification for this location.

V. CERTIFICATION (Read and sign after completing Section VI.)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete.

Name and official title of owner or owner's authorized representative	Signature	Date Signed
Cindy Wentzel	Cindy Wentzel	3-5-90

CONTINUE ON REVERSE SIDE

MI0013254

VI. DESCRIPTION OF UNDERGROUND STORAGE TANKS *(Complete for each tank at this location.)*

Tank Identification No. (e.g., ABC-123), or Arbitrarily Assigned Sequential Number (e.g., 1,2,3...)		Tank No.	Tank No.	Tank No.	Tank No.	Tank No.
1. Status of Tank *(Mark all that apply ☒)*	Currently in Use	☐	☐	☐	☐	☐
	Temporarily Out of Use	☐	☐	☐	☐	☐
	Permanently Out of Use	☐	☐	☐	☐	☐
	Brought into Use after 5/8/86	☐	☐	☐	☐	☐
2. Estimated Age (Years)						
3. Estimated Total Capacity (Gallons)						
4. Material of Construction *(Mark one ☒)*	Steel	☐	☐	☐	☐	☐
	Concrete	☐	☐	☐	☐	☐
	Fiberglass Reinforced Plastic	☐	☐	☐	☐	☐
	Unknown	☐	☐	☐	☐	☐
	Other, Please Specify	_____	_____	_____	_____	_____
5. Internal Protection *(Mark all that apply ☒)*	Cathodic Protection	☐	☐	☐	☐	☐
	Interior Lining (e.g., epoxy resins)	☐	☐	☐	☐	☐
	None	☐	☐	☐	☐	☐
	Unknown	☐	☐	☐	☐	☐
	Other, Please Specify	_____	_____	_____	_____	_____
6. External Protection *(Mark all that apply ☒)*	Cathodic Protection	☐	☐	☐	☐	☐
	Painted (e.g., asphaltic)	☐	☐	☐	☐	☐
	Fiberglass Reinforced Plastic Coated	☐	☐	☐	☐	☐
	None	☐	☐	☐	☐	☐
	Unknown	☐	☐	☐	☐	☐
	Other, Please Specify	_____	_____	_____	_____	_____
7. Piping *(Mark all that apply ☒)*	Bare Steel	☐	☐	☐	☐	☐
	Galvanized Steel	☐	☐	☐	☐	☐
	Fiberglass Reinforced Plastic	☐	☐	☐	☐	☐
	Cathodically Protected	☐	☐	☐	☐	☐
	Unknown	☐	☐	☐	☐	☐
	Other, Please Specify	_____	_____	_____	_____	_____
8. Substance Currently or Last Stored in Greatest Quantity by Volume *(Mark all that apply ☒)*	**a. Empty**	☐	☐	☐	☐	☐
	b. Petroleum					
	Diesel	☐	☐	☐	☐	☐
	Kerosene	☐	☐	☐	☐	☐
	Gasoline (including alcohol blends)	☐	☐	☐	☐	☐
	Used Oil	☐	☐	☐	☐	☐
	Other, Please Specify	_____	_____	_____	_____	_____
	c. Hazardous Substance	☐	☐	☐	☐	☐
	Please Indicate Name of Principal CERCLA Substance	_____	_____	_____	_____	_____
	OR					
	Chemical Abstract Service (CAS) No.	_____	_____	_____	_____	_____
	Mark box ☒ if tank stores a mixture of substances	☐	☐	☐	☐	☐
	d. Unknown	☐	☐	☐	☐	☐
9. Additional Information (for tanks permanently taken out of service)	a. Estimated date last used (mo/yr)	/	/	/	/	/
	b. Estimated quantity of substance remaining (gal.)	_____	_____	_____	_____	_____
	c. Mark box ☒ if tank was filled with inert material (e.g., sand, concrete)	☐	☐	☐	☐	☐

313-562-6400
FAX 313-562-8248
TWX-810-221-5124

WOLVERINE GASKET & MFG. CO.

2638 PRINCESS STREET • INKSTER, MICHIGAN 48141-2398

March 6, 1990

Michigan State Police
State Fire Marshal Division
UST Program
7150 Harris Dr
Lansing, MI 48913

Re: UST Closure

Dear UST Program:

Enclosed please find a copy of the closure report for the last two USTs removed from Wolverine Gasket & MFG Company (formerly Fabricon Automotive Products), 1900 West Pleasant Ave, River Rouge. Also enclosed is an updated Notification for Underground Storage Tanks form. The 5000 and 1500 gallon tanks that you have on file to be at the River Rouge facility were removed in April, 1989 (reference closure report June 20, 1989).

3 + 4

If you have any questions please feel free to contact me at the Inkster facility (313) 562-6400.

Sincerely,

Cindy Wentzel

Cindy Wentzel
Plant Chemist

encs.

cc: Tim Guarino, River Rouge Fire Marshal w/o Notification form
Dorsey Anderson, Wolverine Gasket

*Notification for Underground Storage Tanks

FORM APPROVED
OMB NO. 2050-0049
APPROVAL EXPIRES 6-30-88

FOR TANKS IN MI

RETURN COMPLETED FORM TO
Ground Water Quality Division
Department of Natural Resources
Box 30157
Lansing, MI 48909

MICHIGAN STATE POLICE
RECEIVED
JAN 11 1989
FIRE MARSHAL DIVISION
LANSING, MICHIGAN

STATE USE ONLY
I.D. Number 00132660
Date Received

GENERAL INFORMATION

Notification is required by Federal law for all underground tanks that have been used to store regulated substances since January 1, 1974, that are in the ground as of May 8, 1986, or that are brought into use after May 8, 1986. The information requested is required by Section 9002 of the Resource Conservation and Recovery Act, (RCRA), as amended.

The primary purpose of this notification program is to locate and evaluate underground tanks that store or have stored petroleum or hazardous substances. It is expected that the information you provide will be based on reasonably available records, or, in the absence of such records, your knowledge, belief, or recollection.

Who Must Notify? Section 9002 of RCRA, as amended, requires that, unless exempted, owners of underground tanks that store regulated substances must notify designated State or local agencies of the existence of their tanks. Owner means—

(a) in the case of an underground storage tank in use on November 8, 1984, or brought into use after that date, any person who owns an underground storage tank used for the storage, use, or dispensing of regulated substances, and

(b) in the case of any underground storage tank in use before November 8, 1984, but no longer in use on that date, any person who owned such tank immediately before the discontinuation of its use.

What Tanks Are Included? Underground storage tank is defined as any one or combination of tanks that (1) is used to contain an accumulation of "regulated substances," and (2) whose volume (including connected underground piping) is 10% or more beneath the ground. Some examples are underground tanks storing: 1. gasoline, used oil, or diesel fuel, and 2. industrial solvents, pesticides, herbicides or fumigants.

What Tanks Are Excluded? Tanks removed from the ground are not subject to notification. Other tanks excluded from notification are:
1. farm or residential tanks of 1,100 gallons or less capacity used for storing motor fuel for noncommercial purposes;
2. tanks used for storing heating oil for consumptive use on the premises where stored;
3. septic tanks;
4. pipeline facilities (including gathering lines) regulated under the Natural Gas Pipeline Safety Act of 1968, or the Hazardous Liquid Pipeline Safety Act of 1979, or which is an intrastate pipeline facility regulated under State laws;
5. surface impoundments, pits, ponds, or lagoons;
6. storm water or waste water collection systems;
7. flow-through process tanks;
8. liquid traps or associated gathering lines directly related to oil or gas production and gathering operations;
9. storage tanks situated in an underground area (such as a basement, cellar, mineworking, drift, shaft, or tunnel) if the storage tank is situated upon or above the surface of the floor.

What Substances Are Covered? The notification requirements apply to underground storage tanks that contain regulated substances. This includes any substance defined as hazardous in section 101 (14) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), with the exception of those substances regulated as hazardous waste under Subtitle C of RCRA. It also includes petroleum, e.g., crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute).

Where To Notify? Completed notification forms should be sent to the address given at the top of this page.

When To Notify? 1. Owners of underground storage tanks in use or that have been taken out of operation after January 1, 1974, but still in the ground, must notify by May 8, 1986. 2. Owners who bring underground storage tanks into use after May 8, 1986, must notify within 30 days of bringing the tanks into use.

Penalties: Any owner who knowingly fails to notify or submits false information shall be subject to a civil penalty not to exceed $10,000 for each tank for which notification is not given or for which false information is submitted.

Tanks Removed 4/18/89

INSTRUCTIONS

Please type or print in ink all items except "signature" in Section V. **This form must by completed for each location containing underground storage tanks.** If more than 5 tanks are owned at this location, photocopy the reverse side, and staple continuation sheets to this form.

Indicate number of continuation sheets attached: 0

I. OWNERSHIP OF TANK(S)

Owner Name (Corporation, Individual, Public Agency, or Other Entity): WOLVERINE GASKET & MFG CO

Street Address: 1900 W. PLEASANT AVE

County: WAYNE

City: RIVER ROUGE | State: MI | ZIP Code: 48218

Area Code / Phone Number: ~~313 841-8200~~

Type of Owner (*Mark all that apply* ☒)
- ☒ Current
- ☐ Former
- ☐ State or Local Gov't
- ☐ Federal Gov't (GSA facility I.D. no. ________)
- ☒ Private or Corporate
- ☐ Ownership uncertain

II. LOCATION OF TANK(S)

(If same as Section 1, mark box here ☒)

Facility Name or Company Site Identifier, as applicable

Street Address or State Road, as applicable

County

City (nearest) | State | ZIP Code

Indicate number of tanks at this location: 4

Mark box here if tank(s) are located on land within an Indian reservation or on other Indian trust lands ☐

III. CONTACT PERSON AT TANK LOCATION

Name (If same as Section I, mark box here ☐): CINDY WENTZEL

Job Title: PLANT CHEMIST

Area Code / Phone Number: (313) 562-6400

IV. TYPE OF NOTIFICATION

☒ Mark box here only if this is an amended or subsequent notification for this location.

V. CERTIFICATION (Read and sign after completing Section VI.)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete.

Name and official title of owner or owner's authorized representative: CINDY WENTZEL PLANT CHEMIST

Signature: Cindy Wentzel

Date Signed: 1-6-89

CONTINUE ON REVERSE SIDE

VI. DESCRIPTION OF UNDERGROUND STORAGE TANKS (Complete for each tank at this location.)

Tank Identification No. (e.g., ABC-123), or Arbitrarily Assigned Sequential Number (e.g., 1,2,3...)	Tank No. 1	Tank No. 2	Tank No. 3	Tank No. 4	Tank No.
1. Status of Tank (Mark all that apply ☒)					
Currently in Use	X	X		X	
Temporarily Out of Use					
Permanently Out of Use					
Brought into Use after 5/8/86					
2. Estimated Age (Years)	25+	25+	25+	25+	
3. Estimated Total Capacity (Gallons)	10,000	5,000	15,000	10,000	
4. Material of Construction (Mark one ☒)					
Steel	X	X	X	X	
Concrete					
Fiberglass Reinforced Plastic					
Unknown					
Other, Please Specify					
5. Internal Protection (Mark all that apply ☒)					
Cathodic Protection					
Interior Lining (e.g., epoxy resins)					
None	X	X	X	X	
Unknown					
Other, Please Specify					
6. External Protection (Mark all that apply ☒)					
Cathodic Protection					
Painted (e.g., asphaltic)					
Fiberglass Reinforced Plastic Coated					
None	X	X	X	X	
Unknown					
Other, Please Specify					
7. Piping (Mark all that apply ☒)					
Bare Steel	X	X	X	X	
Galvanized Steel	X	X	X		
Fiberglass Reinforced Plastic					
Cathodically Protected					
Unknown					
Other, Please Specify					
8. Substance Currently or Last Stored in Greatest Quantity by Volume (Mark all that apply ☒)					
a. Empty					
b. Petroleum					
Diesel					
Kerosene					
Gasoline (including alcohol blends)					
Used Oil					
Other, Please Specify					
c. Hazardous Substance	X	X	X	X	
Please Indicate Name of Principal CERCLA Substance OR Chemical Abstract Service (CAS) No.	ISOPROPYL ALCOHOL	METHANOL	CURED RESIN	ISOPROPYL ALCOHOL	
Mark box ☒ if tank stores a mixture of substances					
d. Unknown					
9. Additional Information (for tanks permanently taken out of service)					
a. Estimated date last used (mo/yr)	/	01/09/89	01/01/89	/	/
b. Estimated quantity of substance remaining (gal.)		0	0		
c. Mark box ☒ if tank was filled with inert material (e.g., sand, concrete)					

Removed 4/11/89

Removed 4/11/89

MI0013258

APPENDIX I to §280.3

Notification for Underground Storage Tanks

FORM APPROVED
OMB NO. 2050-0049
APPROVAL EXPIRES 5-31-88

MAY 09 1986

GOD-COMPLIANCE

I.D Number STATE USE ONLY 018260

Date Received

GENERAL INFORMATION

Notification is required by Federal law for all underground tanks that have been used to store regulated substances since January 1, 1974, that are in the ground as of May 8, 1986, or that were brought into use after May 8, 1986. The information requested is authorized by Section 9002 of the Resource Conservation and Recovery Act (RCRA).

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- In the case of any underground storage tank in use before November 8, 1984, but no longer in use on that date, any person who owned such tank immediately before the discontinuation of its use.

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2. Tanks storing heating oil for consumptive use on the premises where stored;
3. Septic tanks;
4. Pipeline facilities (including gathering lines) regulated under the Natural Gas Pipeline Safety Act of 1968, or the Hazardous Liquid Pipeline Safety Act of 1979, or which is an intrastate pipeline facility regulated under State laws;
5. Surface impoundments, pits, ponds, or lagoons;
6. Storm water or wastewater collection systems;
7. Flow-through process tanks;
8. Liquid traps or associated gathering lines directly related to oil or gas production and gathering operations;
9. Storage tanks situated in an underground area (such as a basement, cellar, mineworking, drift, shaft, or tunnel) if the storage tank is situated upon or above the surface of the floor.

What Substances Are Covered? The notification requirements apply to underground storage tanks that contain regulated substances. This includes any substance defined as hazardous in section 101 (14) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), with the exception of those substances regulated as hazardous waste under Subtitle C of RCRA. It also includes petroleum, e.g., crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute).

Where To Notify? Completed notification forms should be sent to the address given at the top of this page.

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Penalties: Any owner who knowingly fails to notify or submits false information shall be subject to a civil penalty not to exceed $10,000 for each tank for which notification is not given or for which false information is submitted.

INSTRUCTIONS

Type or print in ink all items except "signature" in Section V. **This form must by completed for each location containing underground storage tanks.** If more than 5 tanks are owned at this location, use the reverse side and staple continuation sheets to this form.

Indicate number of continuation sheets attached: 2

I. OWNERSHIP OF TANK(S)

Name (Corporation, Individual, Public Agency, or Other Entity)

EAGLE PICHER IND. INC.

Mailing Address

250 WALNUT Street
P.O. Box 779

Cincinnati OHIO 45201
City State ZIP Code

513 - 7010
Phone Number

Owner (Mark all that apply ☒)

- ☐ State or Local Gov't
- ☐ Federal Gov't GSA facility I.D. no. _____
- ☐ Private or Corporate
- ☐ Ownership uncertain

II. LOCATION OF TANK(S)

(If same as Section 1, mark box here ☐)

Facility Name or Company Site Identifier, as applicable

FABRICON AUTOMOTIVE PRODUCTS

Street Address or State Road, as applicable

1900 W. PLEASANT

County

WAYNE

City (nearest) RIVER ROUGE State MICH ZIP Code 48218

Indicate number of tanks at this location: 5

Mark box here if tank(s) are located on land within an Indian reservation or on other Indian trust lands ☐

III. CONTACT PERSON AT TANK LOCATION

(If same as Section I, mark box here ☐)

Name: KERSEY V. ANDERSON

Job Title: PLANT MANAGER

Area Code Phone Number: 313 - 841-8200

IV. TYPE OF NOTIFICATION

☐ Mark box here only if this is an amended or subsequent notification for this location.

V. CERTIFICATION (Read and sign after completing Section VI.)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete.

Official title of owner or owner's authorized representative

Signature: EDWARD J. DOLAN (President)

Date Signed: 5-7-86

CONTINUE ON REVERSE SIDE

EPA Form 7530-1 (5-85)

Owner Name (from Section I) _____ Location (from Section II) _____ Page No. ____ of ____ Pages

VI. DESCRIPTION OF UNDERGROUND STORAGE TANKS (Complete for each tank at this location)

Tank Identification No. (e.g., ABC-123), or Arbitrarily Assigned Sequential Number (e.g., 1,2,3...)		Tank No. 1	Tank No. 2	Tank No. 3	Tank No. 4	Tank No. 5
1. Status of Tank (Mark all that apply ☒)	Currently in Use	■	☐	■	■	■
	Temporarily Out of Use	☐	☐	☐	☐	☐
	Permanently Out of Use	☐	■	☐	☐	☐
	Brought into Use after 5/8/86	☐	☐	☐	☐	☐
2. Estimated Age (Years)		35 YRS	35 YRS	35 yrs	35 yrs	20 YRS
3. Estimated Total Capacity (Gallons)		10,000 gal	10,000 gal	5000 gal	1500 gal	12000 gal
4. Material of Construction (Mark one ☒)	Steel	■	■	■	■	■
	Concrete	☐	☐	☐	☐	☐
	Fiberglass Reinforced Plastic	☐	☐	☐	☐	☐
	Unknown	☐	☐	☐	☐	☐
	Other, Please Specify					
5. Internal Protection (Mark all that apply ☒)	Cathodic Protection	☐	☐	☐	☐	☐
	Interior Lining (e.g., epoxy coated)	☐	☐	☐	☐	☐
	None	☐	☐	☐	☐	☐
	Unknown	■	■	■	■	■
	Other, Please Specify					
6. External Protection (Mark all that apply ☒)	Cathodic Protection	☐	☐	☐	☐	☐
	Painted (e.g., asphaltic)	☐	☐	☐	☐	☐
	Fiberglass Reinforced Plastic Coated	☐	☐	☐	☐	☐
	None	☐	☐	☐	☐	☐
	Unknown	■	■	■	■	■
	Other, Please Specify					
7. Piping (Mark all that apply ☒)	Bare Steel	■	■	■	■	■
	Galvanized Steel	☐	☐	☐	☐	☐
	Fiberglass Reinforced Plastic	☐	☐	☐	☐	☐
	Cathodically Protected	☐	☐	☐	☐	☐
	Unknown	☐	☐	☐	☐	☐
	Other, Please Specify					
8. Substance Currently or Last Stored in Greatest Quantity by Volume (Mark all that apply ☒)	a. Empty	☐	■	☐	☐	☐
	b. Petroleum					
	Diesel	☐	☐	☐	☐	☐
	Kerosene	☐	☐	☐	☐	☐
	Gasoline (including alcohol blends)	■	☐	■	■	☐
	Used Oil	☐	☐	☐	☐	☐
	Other, Please Specify	METHANOL	PHENOLIC RESIN	INKSOL	IPA	#8 FUEL OIL
	c. Hazardous Substance	☐	☐	☐	☐	☐
Please Indicate Name of Principal CERCLA Substance OR Chemical Abstract Service (CAS) No.						
Mark box ☒ if tank stores a mixture of substances		☐	☐	☐	☐	☐
	d. Unknown	☐	☐	☐	☐	☐
9. Additional Information (for tanks permanently taken out of service)						
a. Estimated date last used (mo/yr)			EST / 1975			
b. Estimated quantity of substance remaining (gal.)			0			
c. Mark box ☒ if tank was filled with inert material (e.g., sand, concrete)		☐	☐	☐	☐	☐

W

MICHIGAN STATE POLICE FIRE MARSHAL DIVISION
UST PROGRAM
NOTIFICATION OF UST REMOVAL/CLOSURE
Sec. 280.71(a) EPA Rules

Date Received 3/17/89 Person Receiving Information Jeri Hartman

Method of Notification: Phone X Letter __ (attach to file copy of form)

Name of Person Giving Information: Cindy Wentzel

Location of Tanks

Company Name Wolverine Gasket & Manu

Address 1900 W. Pleasant

City/State/Zip River Rouge, MI 48218

County Wayne Township

Contact Person Cindy Wentzel Phone (313) 362-6400

Company Mailing Address 2638 Pricess St.
Inkster, MI 48141

Tank Information

Date Tanks are to be Removed April 17, 1989

Number Removed 4 Capacity 1 5,000 2 5,000 3 10,000
4 1,500 5 6

Company Doing Removal

Name J. M. Jacobs Co.

Address 5734 Bingham

City/State/Zip Troy, MI 48098

Copy of this Form Sent To: DNR (field) X FD (information only) X

Date Sent 3/20/89

Follow-Up Letter Sent (owner/operator): Date 3/20/89

site ass. rec'd 6/23/89

****INTERNAL USE ONLY****

MI0013261

4/17/89

313-562-6400
FAX 313-562-8248
TWX-810-221-5124

VOLVERINE GASKET & MFG. CO.

2638 PRINCESS STREET • INKSTER, MICHIGAN 48141-2398

June 20, 1989

Michigan State Police
State Fire Marshal Division
UST Program
7150 Harris Dr
Lansing, MI 48913

Re: Underground Storage Tank Removal and Site Assessment

Attn: UST Program

Your office was notified March 17, 1989 of plans to remove underground storage tanks at the Wolverine Gasket & Mfg (formerly Fabricon Automotive) facility located at 1900 W Pleasant Ave, River Rouge. Excavation began April 18. After uncovering tanks 2 and 3 (see attached site map), it was discovered the two 10,000 gallon tanks are partially underneath the foundation and removal would jeprodize the integrity of the building. The River Rouge fire marshal, Timothy Guarino, inspected the site and approved abandonment in place. A copy of his letter is enclosed. The tanks have not yet been filled with a solid inert material. Future plans for the building are not definite. It is a possibility that the building will be torn down, which would allow us to remove the tanks. A portion of the connecting building was destroyed by a fire on December 29, 1988 and the plant has been closed since.

Excavation continued with tank 4, a 1500 gallon Isopropyl Alcohol tank. Close inspection of the tank after removal showed it was in good condition. Some pitting of the surface, but no holes were observed. Soil samples were taken from each end of the pit bottom.

The contractor returned April 24 to remove tank 1, a 5000 gallon Isopropyl Alcohol tank. Inspection of the removed tank showed two one-half inch diameter holes. Soil samples were taken at each end of the pit and at the exposed end of tank 3.

The samples were analyzed for the products or product components that had been stored in the tanks: methanol, ethanol, isopropyl alcohol and total phenol. After phenol was determined to be present, further sampling was conducted with a soil core/auger sampler on May 9 to identify possible vertical contamination. Background samples were also taken at this time. Sample location descriptions and analytical data are enclosed.

If you have any questions concerning the removal or site assessment please contact me at 562-6400.

Sincerely,

Cindy Wentzel

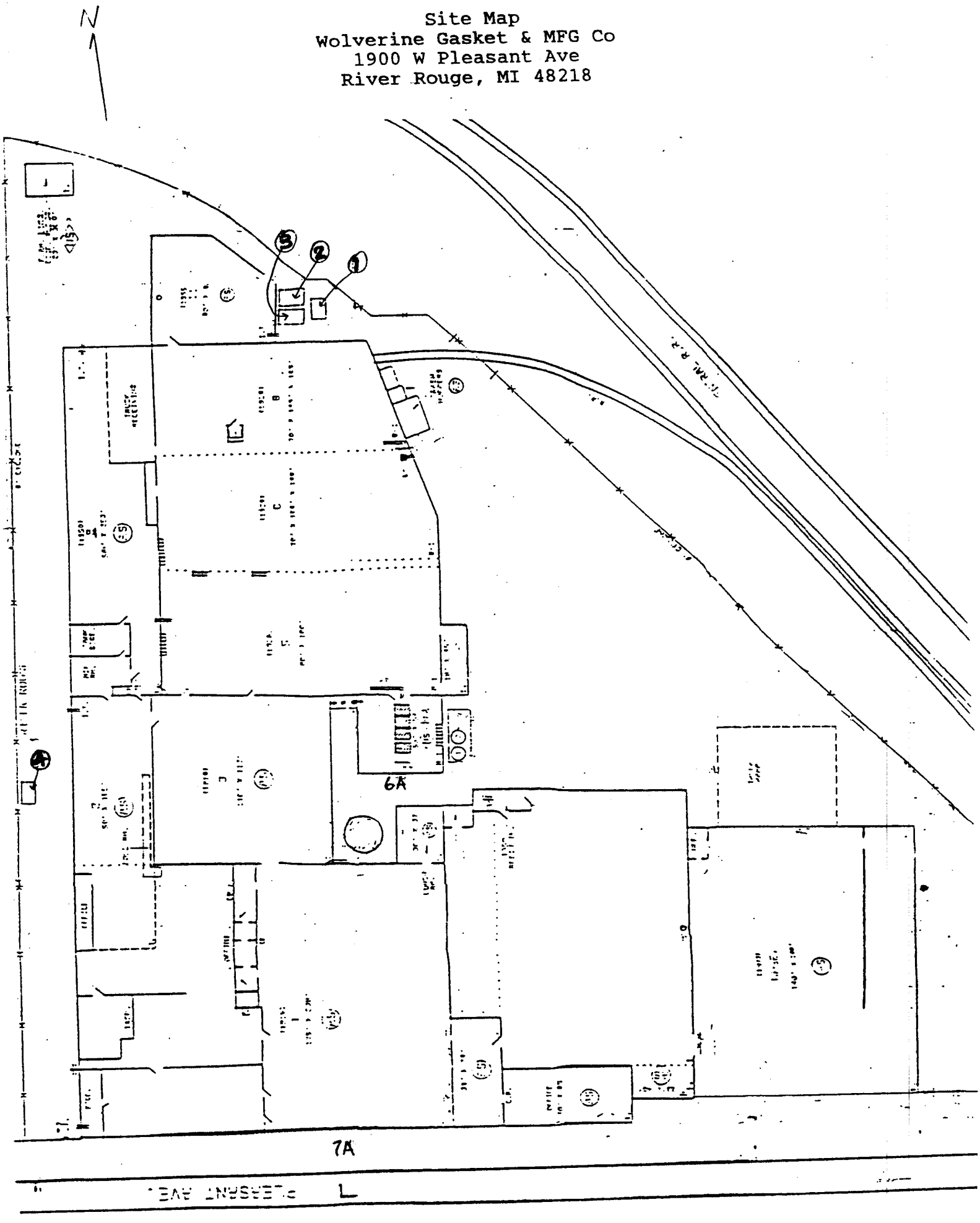
Cindy Wentzel
Plant Chemist

CKW/c

enc.

cc: Dorsey Anderson

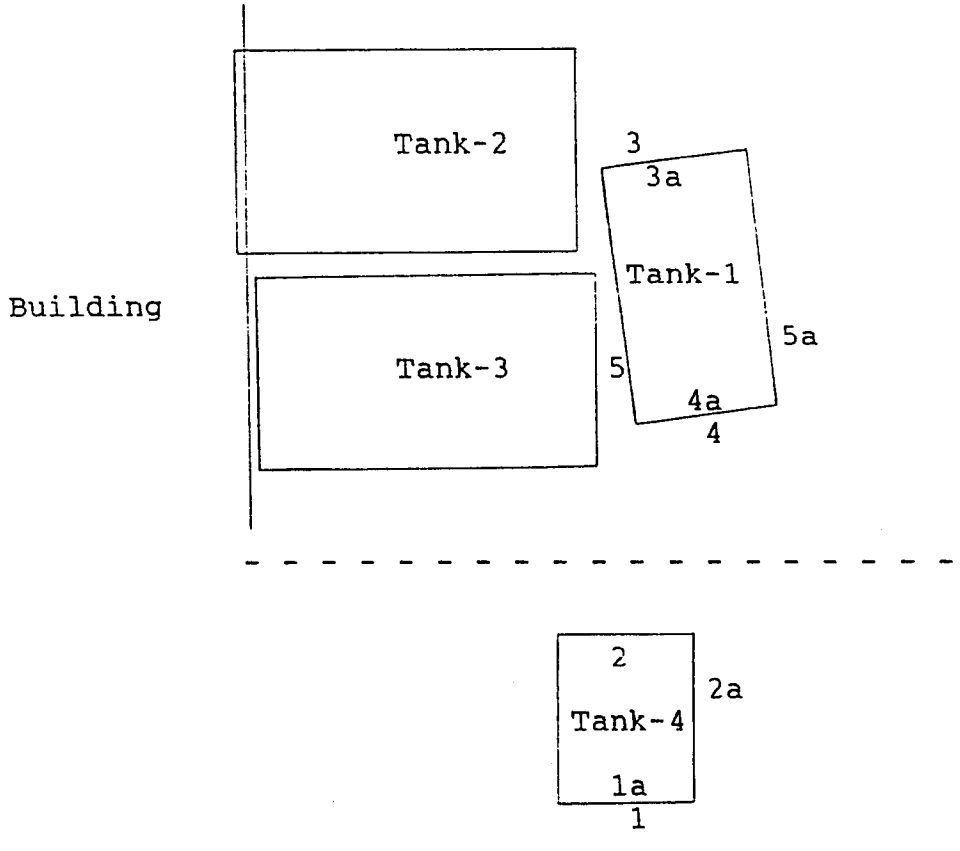
Site Map
Wolverine Gasket & MFG Co
1900 W Pleasant Ave
River Rouge, MI 48218



MI0013264

Soil Sampling Locations

Sample	Description	Date
1	Pit bottom	4/18/89
2	Pit bottom	4/18/89
3	Pit bottom	4/24/89
4	Pit bottom	4/24/89
5	Near bottom of Tank 3	4/25/89
1a	1' below pit bottom	5/9/89
2a	3' below ground surface, & 1' into pit side	5/9/89
3a	1' below pit bottom	5/9/89
4a	1' below pit bottom	5/9/89
5a	4' below ground surface, & 1' into pit side	5/9/89
6a	3' below ground surface (see site map for location)	5/9/89
7a	3' below ground surface (see site map for location)	5/9/89



DIHYDRO ANALYTICAL REPORT

CLIENT: Wolverine Gasket Company

REPORT#: L-89-04-137

DATE RECEIVED: 4-25-89

SAMPLING SITE(S):

1. **South end of 1,500 gallon IPA tank**
2. **North end of 1,500 gallon IPA tank**
3. **North end of 5,000 gallon and South end of 10,000 gallon methanol**
4. **South end of 5, 000 gallon IPA**
5. **South end of 10,000 gallon resin tank**

PARAMETERS	RESULTS				
Matrix:	*Soil*				
	Sample #1	Sample #2	Sample #3	Sample #4	Sample #5
Methanol	<10	<10	<10	<10	<10
Ethanol	<10	<10	<10	<10	<10
Isopropyl Alcohol	<10	<10	<10	<10	<10
Phenol, total	3.9	6.0	<0.1	16	1.8

All results are expressed as mg/kg (ppm) as received except as noted.

Fred Hoitash

Fred Hoitash
Director of Environmental Services

DIHYDRO ANALYTICAL REPORT

CLIENT: Wolverine Gasket Company

REPORT#: L-89-05-46

SAMPLING DATE: 5-9-89

SAMPLING SITE(S): River Rouge

PARAMETERS	RESULTS	
Matrix:	***Soil***	
Sample(s) Description:	1a) ***1500 Gallon IPA Tank***	2a) ***1500 Gallon IPA Tank***
Phenols, total	3.0	<0.1
Sample(s) Description:	3a) ***5000 Gallon IPA Tank***	4a) ***5000 Gallon IPA Tank***
Phenols, total	1.3	<0.1
Sample(s) Description:	5a) ***5000 Gallon IPA Tank***	6a) ***Background***
Phenols, total	<0.1	0.47
Sample(s) Description:	7a) ***Background***	
Phenols, total	<0.1	

All results are expressed as mg/kg (ppm) as received except as noted.

Fred Hoitash

Fred Hoitash
Director of Environmental Services

KEVIN H. GRIGNON
Chief

Phone 842-1718

FIRE PREVENTION BUREAU
FIRE MARSHALS OFFICE

City of River Rouge

10600 WEST JEFFERSON AVENUE
RIVER ROUGE, MICHIGAN 48218

BOBBY L. TACKETT
Fire Marshal

Phone 841-0360

April 19, 1989

Mr. Dorsey Anderson
Plant Manager
Wolverine Gasket Co.
1900 W. Pleasant
River Rouge, MI 48218

Dear Dorsey,

This letter is a confirmation of my decision not to require Wolverine Gasket to remove the three underground tanks abutting the north-east corner of your building.

The inspection on April 18, 1989 revealed that removal of these tanks would have an adverse effect on the structural integrity of the building.

In addition, per our conversation that day, I will require that the tanks be pumped out, filled with sand and recovered with clean fill dirt.

If you have any questions feel free to call me at any time.

Sincerely,

Timothy Guarino
Fire Marshal

ERM Phase I Report 11/30/90
Fab Products

This wooded area is to be retained by Eagle-Picher and not included as part of the subject transaction.

6.11.2 Soils

Soils surrounding the facility (encountered to a depth of three feet) appear to be composed of mixed fill materials - primarily brown sands, silts and clays.

Soils in the wooded area adjoining the western side of the property appear to be composed of fill materials varying from construction rubble and solid debris to what appears to be cinders and fill sands.

6.11.3 Clor-n-Soil

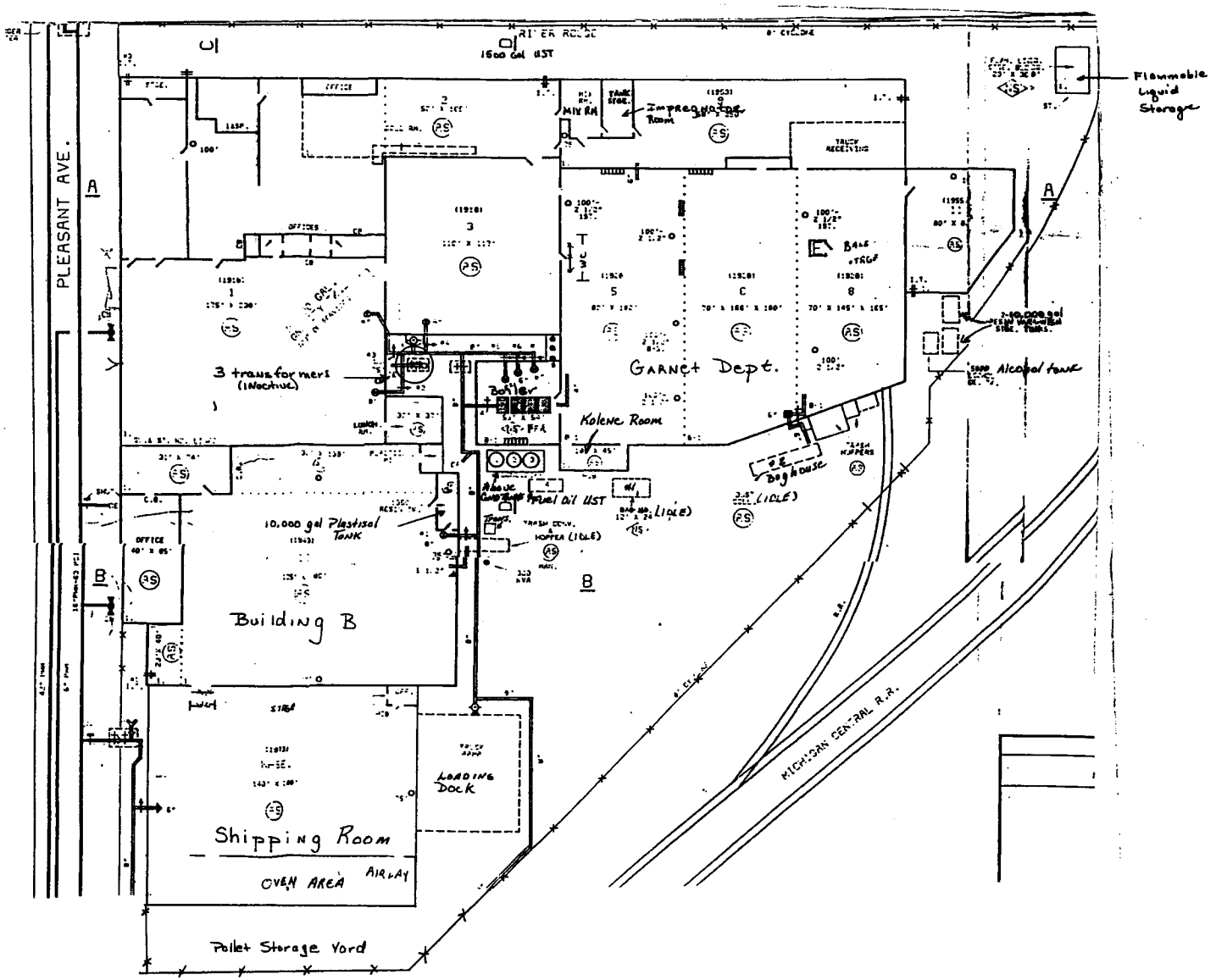
Two surface samples were collected along the eastern side of the property that exhibited visual surface oil staining (Figure 3) and tested for chlorinated compounds. Surface soil samples CS-1 and CS-2 were collected and analyzed using a Drexsil Clor-n-Soil test kit as a qualitative analysis for chlorinated compounds, in particular the possible presence of polychlorinated biphenyls (PCBs). The results of both test revealed that chlorinated compounds were below 50 ppm in the two locations tested.

6.12 Conclusions and Recommendations

6.12.1 Findings

Based on the evidence obtained during the site inspection, the following areas of concern were identified:

- Potential asbestos-containing materials (ACM) were observed in the manufacturing areas;
- A large number of drums (55-gal) and pails were discovered in the wooded area adjacent to the western edge of the property. Contents of these containers are unknown, but some of the material appears to be paint pigments. In this area there are several low mounds of fill material(cinders or slag), some of these mounds have partially buried containers protruding from them [Eagle-Picher officials indicate this wooded area is being removed from the present parcel] Deliniation of the property line will be necessary, as well as some additional soils investigation, will be necessary prior to a determination of the effect of this change in the property line to any contamination on the subject site;


PLEASANT AVE.
RIVER ROUGE
1500 Gal UST
Impregnating Room
Flammable Liquid Storage
3 transformers (Inactive)
Boiler
Garnet Dept.
Kolene Room
Bag House
Fuel Oil UST
10,000 gal Plastisol Tank
Building B
Loading Dock
Shipping Room
OVEN AREA
AIR LAY
Pallet Storage Yard
MICHIGAN CENTRAL R.R.

EAGLE PICHER

March 11, 1992

VIA UPS OVERNIGHT

Mr. Richard Hobig
S & J Disposal and Recycling, Inc.
38344 Jefferson
Mt. Clemens, MI 48045

RE: Documents for the Purchase and Sale of Property Located at 1900 West Pleasant Avenue, River Rouge, Michigan

Dear Rich:

Following up my letter to you of March 6, 1992, we have accumulated further documentation relating to the environmental condition of the above-referenced property. Enclosed for your review are the following environmental documents relating to that property:

1. June 20, 1989 letter to the Michigan State Fire Marshal discussing four of the five underground storage tanks of concern at the Property. It describes the two 10,000 gallon tanks for which you have already received the report prepared by WWES addressing their removal. This letter also describes the ongoing removal of the 1500 gallon and 5,000 gallon tanks for which we are continuing our efforts to obtain the final closure report.

2. March 5, 1990, certification to the Michigan State Fire Marshal certifying that no tanks are at the River Rouge site.

3. February 14, 1989 letter to Michigan Department of Natural Resources notifying the agency of Eagle-Picher's intent to remove four underground storage tanks.

4. Copies of the WWES proposals for removal of the two 10,000 gallon underground storage tanks for which you are already in possession of the closure reports. Please note that WWES was formerly known as EDI Engineering and Science.

5. 1987 - 1991 Tier II reports which is an inventory of emergency and hazardous chemicals.

6. Documents relating to the removal of the 12,000 gallon fuel oil storage tank which apparently was removed in 1988 prior to the February 14, 1989 letter to Michigan's Department of Natural Resources notifying the agency of Eagle-Picher's intent to remove the other four underground storage tanks. This 12,000 gallon fuel oil

tank appears to be the mystery tank that we discussed when negotiating the Purchase Agreement.

7. September 28, 1989 letter from Michigan Department of Natural Resources requesting underground storage tank corrective action plans.

This is all of the documentation that we have been able to develop thus far. As Mike Dixon and I explained to you, we expect to receive tomorrow copies of two reports prepared by Technical and Engineering Consultants (TEC) relating to their investigation, materials handling and recommendations relating to the subject property following the fire which took place in December 1988. The reports are dated March 22, 1989 and June 6, 1989 and we understand they address the asbestos issue which you raised. We are still attempting to obtain from WWES the closure reports for the three underground storage tanks which we have not yet produced. As soon as we have those reports, we will immediately relay those to you for your information.

Finally, I am also enclosing a copy of the 1947 survey which I discussed with you yesterday. Although the survey does not provide the sewer and drainage information you are seeking, I hope it may be of some assistance to you in your review of the property.

Please call if you have any questions regarding any of the documents.

Sincerely,

Mark S. Boyle
Attorney

MSB/cak

cc: Mr. Carroll D. Curless
James A. Ralston, Esq.
Mr. Larry E. Mustard
Mr. Dorsey J. Anderson
Mr. Michael [redacted]

GERAGHTY
& MILLER, INC.
Environmental Services

Ground Water *Hydrocarbon* *Remediation* *Education*

October 19, 1992

Mr. Mike Dixon
Eagle Picher Industries, Inc.
P.O. Box 779
Cincinnati, Ohio 45201

RE: Project Update - Excavation Results
Former Wolverine Gasket Manufacturing Company
River Rouge, Michigan
Project Number: MI275.01

Dear Mr. Dixon:

Geraghty & Miller, Inc. (Geraghty & Miller) respectfully presents this report to Eagle Picher Industries, Inc. (Eagle Picher) to summarize the site activities performed to complete the scope of work, as outlined in our proposal dated July 24, 1992. This report discusses the results of analytical testing of underground storage tank (UST) excavation closure soil samples for volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs), and concludes with comments concerning the status of environmental issues related to the former fuel oil tank area.

BACKGROUND

The former Wolverine Gasket Manufacturing Company is located at 1900 Pleasant Street in River Rouge, Michigan (Figure 1). Reportedly, the facility has been closed since 1988 and is presently for sale. Geraghty & Miller was retained by Eagle Picher in April 1992 to conduct remedial activities at the location of a former fuel oil UST at the site. The removal of the fuel oil UST is reported to have occurred in November 1988.

FIELD METHODOLOGY

On August 24, 1992, under the direction of Geraghty & Miller, excavation activities were conducted at the site in an attempt to remove hydrocarbon-impacted soil from the location of a former fuel oil UST. Parks Installation Company (Parks) of Milford, Michigan, provided the backhoe services and coordinated the transport of waste soils for disposal. The waste soils were transported to the BFI Arbor Hills Class II Landfill in Northville, Michigan, for proper disposal. Approximately 568 cubic yards of soil were removed from the excavation and transported for disposal. Eagle Picher is in possession of copies of all the soil disposal manifests generated by this excavation project.

A Geraghty & Miller geologist, using a flame ionization detector (FID) directed the excavation effort. The final dimensions of the excavation are illustrated on Figure 2 and were determined by either the presence of a physical obstruction to further soil removal, or when FID screening of soil samples indicated non-impacted conditions were most likely attained.

Several physical barriers were encountered which limited the excavation laterally and vertically: 1) the foundation of the existing building to the north; 2) the concrete foundation of the retaining wall around the aboveground storage tanks (ASTs) to the west; and 3) a concrete tank pad at a depth of approximately 13 feet below land surface (bls). Field screening with the FID defined the south and east boundaries of the excavation. The FID results from field screening a number of soil samples are illustrated on Figure 3 and presented in Table 1.

After the limits of the excavation were defined based on field screening results and the physical obstructions present, confirmatory closure soil samples were then collected from the sidewalls and floor of the excavation by the Geraghty & Miller geologist. The location of each closure sampling point is illustrated on Figure 4 and the depth of the closure samples are indicated on Table 1. The number of closure samples collected (nine) is in accordance with Michigan Department of Natural Resources (MDNR) requirements as outlined in their guidance document entitled, "Verification of Soil Remediation," dated October 25, 1990. At each sample point, (with the exception of SW-5 and SW-6) a scoop of soil was collected in the bucket of the excavating machine. The soil sample to be submitted for laboratory analysis was then collected from the bucket by the Geraghty & Miller geologist using a stainless steel sampling utensil. The soil sample was placed in appropriately-sized glass jars, sealed with a Teflon™-lined cap, labeled, and placed in an iced cooler as the sampling activities continued.

Soil samples SW-5 and SW-6 were collected by using a hand auger to bore laterally into the excavation wall in order to obtain the soil samples proximal to the foundation of the building. This procedure was necessary because of the slumping of the coarsely-granular backfill materials from around the foundation. So as not to jeopardize the structural integrity of the existing building, all of the visibly affected soil material could not be removed from along the foundation.

To minimize the potential for cross-contamination between soil samples, the sampling utensil or hand auger was washed in a laboratory-grade soap solution followed by a rinse in deionized water. Additionally, the soil sample selected for analysis was collected from that part of the soil scoop that had not come into contact with the sides of the bucket of the excavating machine.

After collection, the soil samples were packaged to ensure non-breakage and shipped, under proper chain-of-custody protocol, in an iced cooler to the Analytical Technologies, Incorporated laboratory in Pensacola, Florida, for analysis of benzene, toluene, ethylbenzene, and xylenes (BTEX), and polynuclear aromatic hydrocarbon (PAH) compounds by U.S. EPA

Methods 8020 and 8310, respectively. These analyses and methodologies are consistent with those required by the MDNR for the investigation of a fuel oil release as outlined in the April 1, 1991, guidance document entitled "Recommended Parameters, Analytical Methods, and Detection Levels at LUST Sites."

FIELD OBSERVATIONS

The excavation activities accomplished removal of the majority of the affected backfill material from the tank pit of the former fuel oil tank. The backfill of the former tank pit extended to the foundation of the adjacent building on the north and coalesced with coarsely granular construction fill underlying the ASTs on the west. On the eastern and southern margin of the excavation, the original walls of the former tank pit were over-excavated. With the exception of the excavation walls adjacent to the existing building and the ASTs, the over-excavation of the former tank pit was extended until visibly stained soils were not present.

As evidenced in the walls of the excavation, the near surface soil material consists of a layer of mixed sand, clay, and gravel "fill" which extends to a depth of approximately 3 feet bls. Underlying the fill is a clay layer which extends to a depth beyond 14 feet bls (the depth of the excavation). In approximately the upper 2 feet of the clay layer, thin sand lenses (less than 2 inches thick) occur interbedded with the clay. Occasionally, these sand interbeds appeared to be saturated with water which is interpreted to be the result of surface infiltration. No true ground water was encountered during the excavation activities.

ANALYTICAL RESULTS

The results of analytical testing of the closure soil samples for BTEX and PAHs is summarized on Table 2, and copies of the original laboratory reports are included as Attachment 1. The analytical results indicate that no concentrations, above laboratory detection limits, of BTEX or PAHs were detected in any of the closure soil samples submitted for analysis.

CONCLUSIONS

On August 24, 1992, remedial activities consisting of excavation and removal of hydrocarbon-affected soil were conducted at the site under the direction of Geraghty & Miller. Approximately 568 cubic yards of hydrocarbon-affected soil were removed and transported for proper disposal at the BFI Arbor Hills Class II Landfill. The lateral extent of the excavation was limited by physical obstructions to the north by the existence of the building foundation, and

to the west by the existence of the retaining wall foundation (around the ASTs). Nine closure soil samples were collected from the excavation in accordance with MDNR regulations for documentation of soil remediation and submitted for analytical testing for BTEX and PAHs in accordance with MDNR regulations for leaking UST sites. The analytical results indicated that no concentrations of BTEX or PAHs above laboratory detection limits were detected in the closure soil samples.

On October 1, 1992, Parks backfilled the excavation with clean, imported sand. Based on the analytical results from the closure soil samples submitted for verification of remediation, Geraghty & Miller concludes that the former fuel oil tank pit area would be acceptable for closure under current State of Michigan Public Act 307 regulations.

As an aside, during our field operations we learned that a high pressure natural gas pipeline occurs beneath your property in the vicinity in which we were working. The pipeline is apparently operated by Wolverine Pipeline Company and reportedly occurs at a depth of between 4- to 6-ft bls. Geraghty & Miller recommends that Eagle Picher obtain information concerning the exact location of the pipeline on the subject property to minimize any health and safety issues that may arise during any future construction work at the site.

Geraghty & Miller appreciates the opportunity to have provided environmental services to Eagle Picher at this site. We would welcome the opportunity to work with Eagle Picher in the future to cost-effectively resolve any environmental issues that you may have at other sites. If you have any questions concerning this project, please call us at (313) 524-9030.

Respectfully submitted,

GERAGHTY & MILLER, INC.

Timothy R. Cook
Staff Scientist

Anthony J. Pirelli
Principal Scientist/Associate

cc: Sandra M. Pelowski, Geraghty & Miller, Inc.

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TABLE 1. FID READINGS OF SAMPLES AND CLOSURE SAMPLES (8/24/92), EAGLE PICHER INDUSTRIES WOLVERINE GASKET & MANUFACTURING - 1900 PLEASANT AVE, RIVER ROUGE, MICHIGAN.

Sample ID	Sample Location	FID Reading	Closure Sample ID
1	North sidewall @ 5' clay	80 ppm	
2	North sidewall @ 4' black sand	>1,000 ppm	
3	Near sewer line; black pea gravel	>1,000 ppm	
4	Below sewer line @ 4'	28 ppm	
5	Below sewer Wall sample/building wall @ 3'	120 ppm	
6	Floor sample @ 5'	50 ppm	
7	Floor sample @ 6'	1,000 ppm	
8	Floor sample @ 8'	50 ppm	
9	Floor sample @ 10'	200 ppm	
10	Floor sample @ 10'	1,000 ppm	
11	Floor sample @ 13' clay	0.0 ppm	
12	North sidewall sample @ 3'; sand red	2-3 ppm	
13	North sidewall sample @ 3'; sand red	0.0 ppm	
14	North sidewall; fine red sand	3-5 ppm	
B-1	Floor sample north end @ 14'; clay	0 ppm	B-1
B-2	Floor sample south end @ 14'; clay	0 ppm	B-2
B-3	Floor sample middle @ 14'; clay	0 ppm	B-3
SW-1	Sidewall east wall @ 6'; clay	0 ppm	SW-1
SW-2	Sidewall south wall @ 6'; clay	2-4 ppm	SW-2
SW-3	Sidewall east wall @ 6'; clay	5-6 ppm	SW-3
SW-5	Sidewall west wall @ 6'; clay	10-12 ppm	SW-5
SW-6	Sidewall west wall @ 6'; sand	35-40 ppm	SW-6
SW-7	Sidewall north wall @ 6'; clay	12-15 ppm	SW-7

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TABLE 2. LABORATORY ANALYTICAL SUMMARY OF SOIL SAMPLES COLLECTED ON 8/24/92 EAGLE PICHER INDUSTRIES WOLVERINE GASKET & MANUFACTURING 1900 PLEASANT AVENUE, RIVER ROUGE, MICHIGAN.

Sample ID	Concentration (ppb)			
	Benzene	Ethylbenzene	Toluene	Xylene
B-1	BDL	BDL	BDL	BDL
B-2	BDL	BDL	BDL	BDL
B-3	BDL	BDL	BDL	BDL
SW-1	BDL	BDL	BDL	BDL
SW-2	BDL	BDL	BDL	BDL
SW-3	BDL	BDL	BDL	BDL
SW-5	BDL	BDL	BDL	BDL
SW-6	BDL	BDL	BDL	BDL
SW-7	BDL	BDL	BDL	BDL

ppb = parts per billion.
BDL = below detection limit.
Method Detection Limit for: Benzene and Ethylbenzene = 7 ppb
Toluene = 33 ppb
Xylenes = 13 ppb
Analytical Laboratory: Analytical Technologies, Inc. (Pensacola, Florida).

b:\275.01\summt2

TABLE 3. SOIL QUALITY ANALYTICAL SUMMARY, EAGLE PICHER INDUSTRIES – WOLVERINE GASKET & MANUFACTURING – 1900 PLEASANT AVENUE, RIVER ROUGE, MICHIGAN.

	Sample Identification								
	B-1	B-2	B-3	SW-1	SW-2	SW-3	SW-5	SW-6	SW-7
	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)
POLYNUCLEAR AROMATICS									
Acenaphthene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Acenaphthylene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Anthracene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(a)anthracene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(a)pyrene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(b)fluoranthene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(g,h,i)perylene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(k)fluoranthene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chrysene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Dibenz(a,h)anthracene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Fluoranthene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Fluorene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Indeno(1,2,3-cd)pyrene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Napthalene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Phenanthrene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Pyrene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,Methylnaphthalene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2,Methylnaphthalene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

Analytical laboratory: Analytical Technologies, Inc. (Pensacola, Florida).
BDL: below detection limit.
Method Detection Limits for all polynuclear aromatic hydrocarbons: 10 ppb.
MDNR: Michigan Department of Natural Resources.
ppb = parts per billion.

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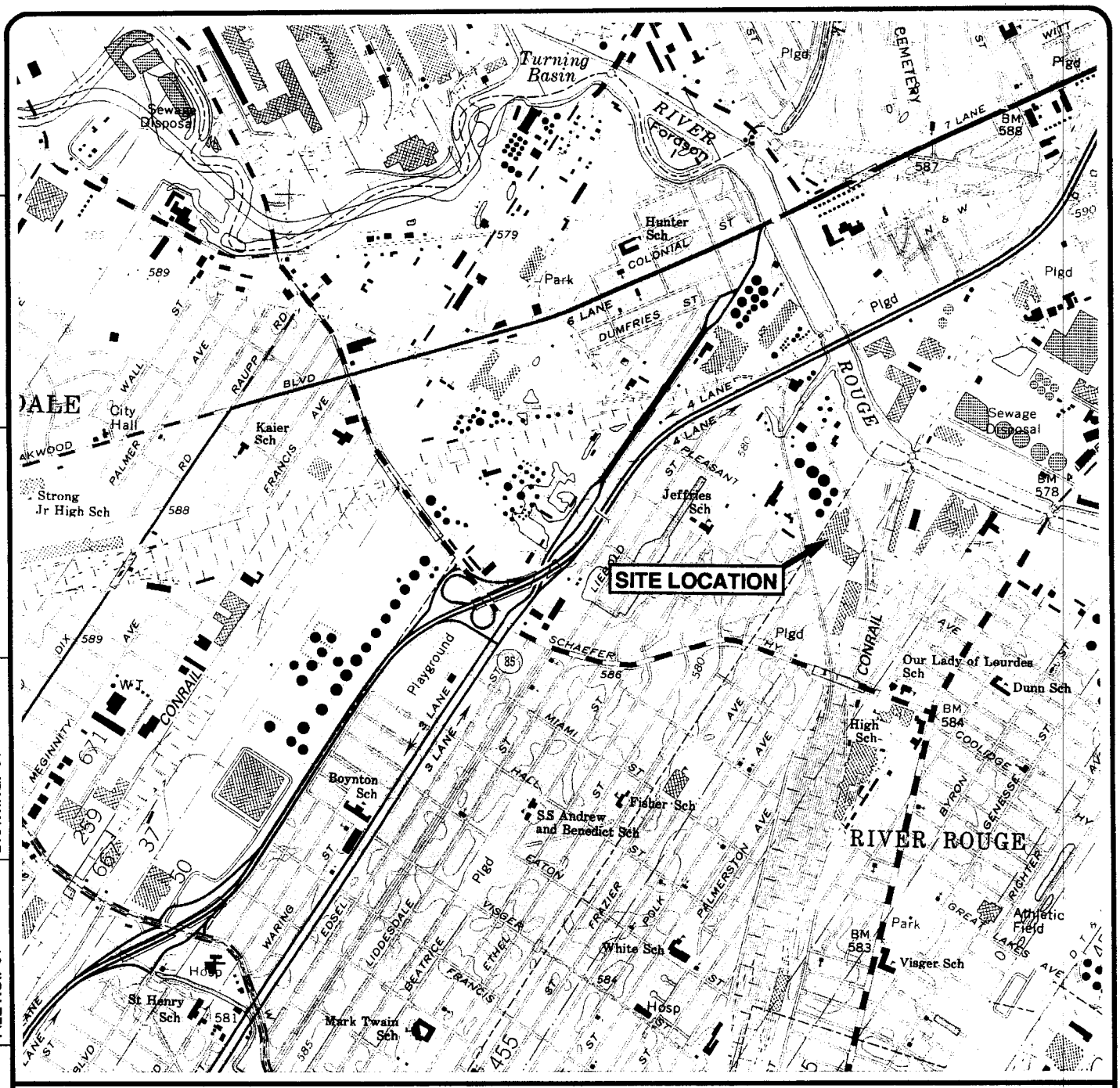

SOURCE: USGS 7.5 Minute Topographic Map, DEARBORN, MICHIGAN Quadrangle, 1983

N

0 1000 2000 4000

SCALE IN FEET

GERAGHTY & MILLER, INC.
Environmental Services

SITE LOCATION MAP

EAGLE-PICHER INDUSTRIES, INC.
FORMER WOLVERINE GASKET & MANUFACTURING CO.
RIVER ROUGE, MICHIGAN

FIGURE

1

MI0013280

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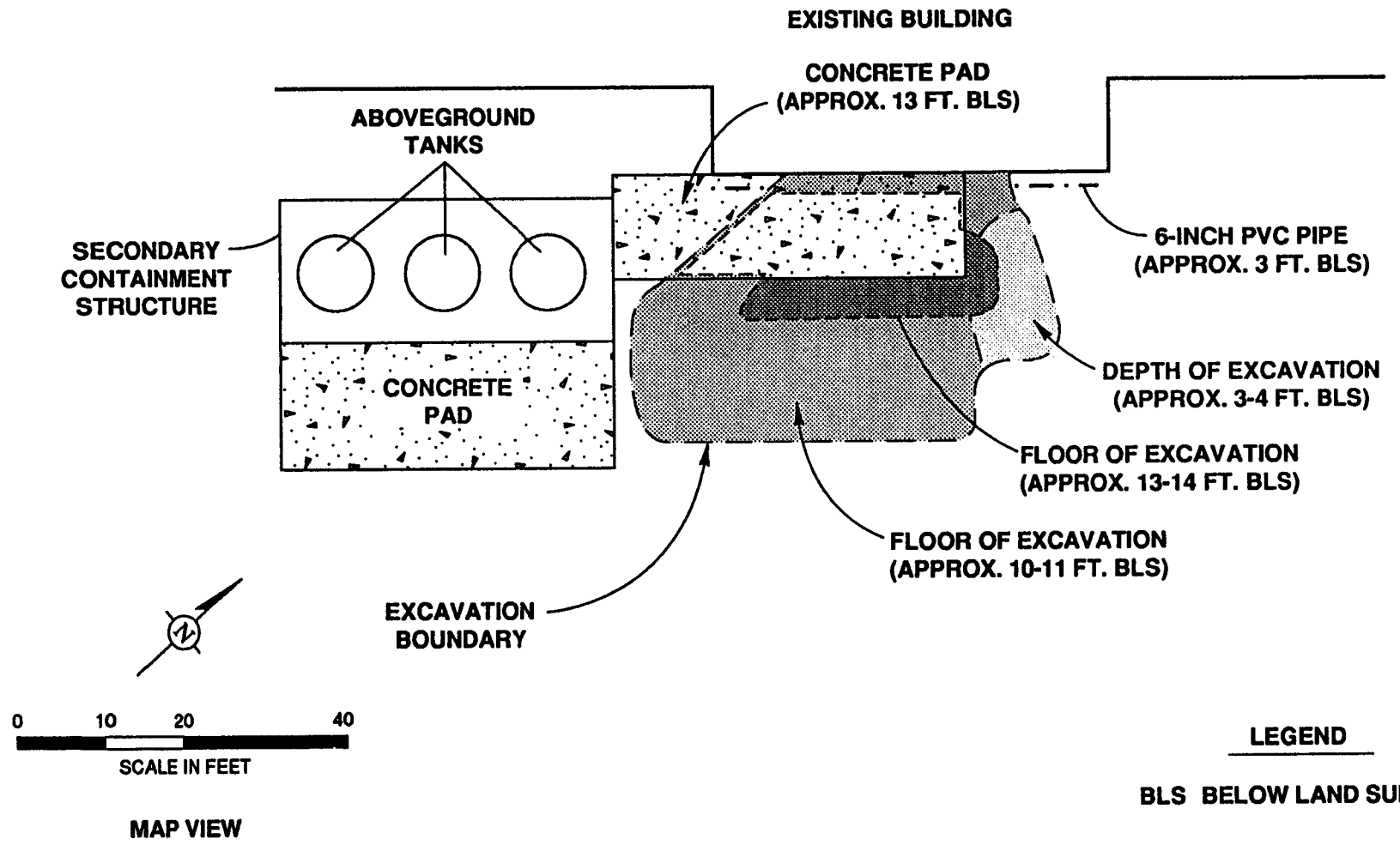

GERAGHTY & MILLER, INC.
Environmental Services

EXCAVATION BOUNDARIES
(8/24/92)

EAGLE-PICHER INDUSTRIES
WOLVERINE GASKET & MANUFACTURING, 1900 PLEASANT AVENUE
RIVER ROUGE, MICHIGAN

FIGURE
2

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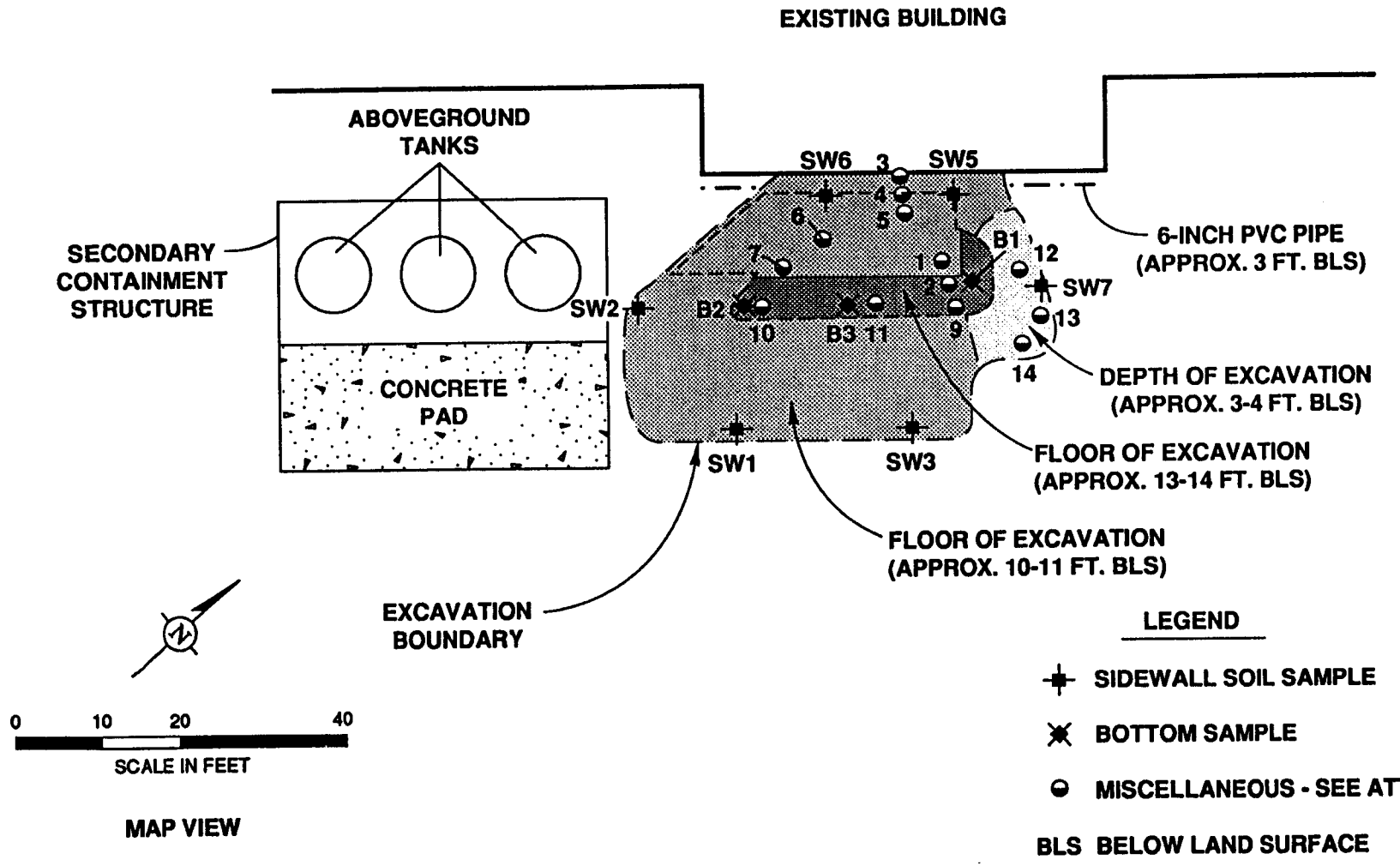


GERAGHTY & MILLER, INC.
Environmental Services

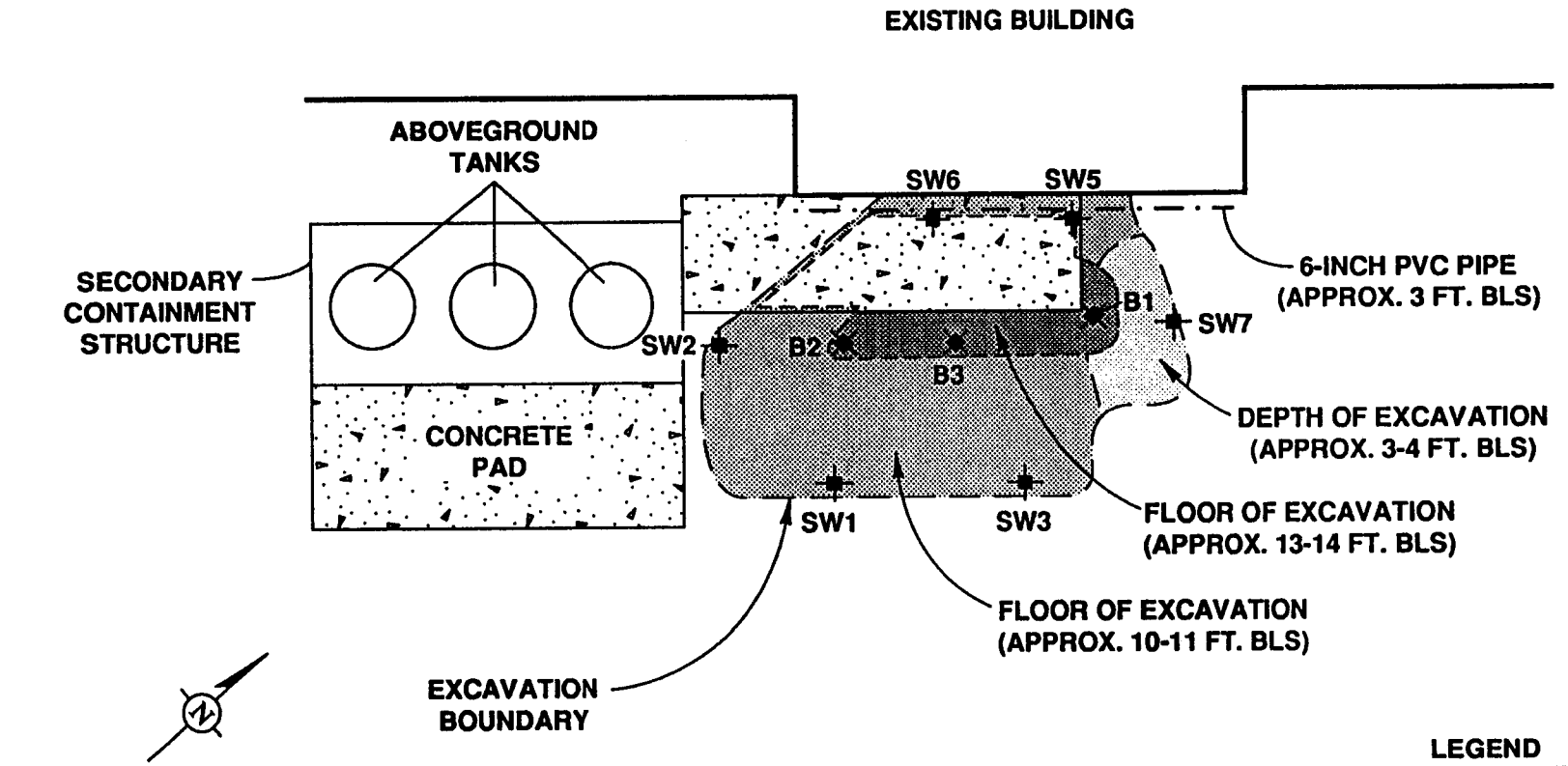
EXCAVATION FID SAMPLE LOCATIONS (8/24/92)

EAGLE-PICHER INDUSTRIES
WOLVERINE GASKET & MANUFACTURING, 1900 PLEASANT AVENUE
RIVER ROUGE, MICHIGAN

FIGURE
3

MI0013282

DWG DATE: 14OCT92	PRJCT NO.: MI275.01	FILE NO.: 0001	DRAWING: 09	CHECKED: TC	APPROVED:	DRAFTER: MS



GERAGHTY & MILLER, INC.
Environmental Services

EXCAVATION CLOSURE SAMPLE LOCATIONS (8/24/92)

EAGLE-PICHER INDUSTRIES
WOLVERINE GASKET & MANUFACTURING
1900 PLEASANT AVENUE, RIVER ROUGE, MICHIGAN

FIGURE
4

MI0013283

ATTACHMENT 1

SOIL SAMPLE ANALYTICAL LABORATORY REPORTS

MEMORANDUM

TO: Tim Cook

FROM: Tim Davis

DATE: September 4, 1992

SUBJECT: Review of Eagle Picher River Rouge Site (MI275.01) Data

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I have performed a limited review of the Eagle Picher data. The data are from samples collected by Geraghty & Miller, Inc. (Geraghty & Miller) personnel during field activities on August 24, 1992. These samples were submitted to ATI Laboratories in Pensacola, Florida for analysis by USEPA methods 8020 (BTEX) and 8310 (PAH).

The limited review consisted of the following items.

*examination of the chain-of-custody (COC) for correctness;
*review of holding time criteria;
*surrogate standards (if available);
*blanks (method and field);
*laboratory duplicate;
*matrix spike review;
* and report format for content.

Raw data were not available for review in the supplied data package.

The limited review of the data did not disqualify any data from use. The data are in line with your project data quality objectives and usable for your project purposes.

If you have further questions concerning this project, please let me know.

Analytical Technologies, Inc. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

GERAGHTY & MILLER
50 W. BIG BEAVER ROAD
SUITE 245
TROY MI 48084-0000

Lab I.D.#: 92-7379
Order Number: P62677
Received Date: 08/26/92
Client: 07048
Sampled By: K. LUND
Sample Date: 08/24/92
Sample Time: N/S

N/S = Not Submitted

Project Number: MI275.01
Project Name: EAGLE PICHER
Sample Site: RIVER ROUGE, MI
Sample Type: SOIL

R E S U L T S

reported on the following page(s)

Comments: PPB = Parts Per Billion, ug/kg on a dry basis. BDL = Below Detection Limits. Method Ref: SW-846, 3rd Edition, November 1986.

Approved By : Mike Moran

Analytical Technologies, Inc. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Client: GERAGHTY & MILLER

Project Number: MI275.01
Project Name: EAGLE PICHER
Sample Site: RIVER ROUGE, MI
Sample Type: SOIL

Lab I.D.#: 92-7379-1
Received Date: 08/26/92
Sampled By: K. LUND

Sample ID.: B-1 Sample Date: 08/24/92 Time: N/S

:TX BENZENE, ETHYLBENZENE, TOLUENE, XYLENE

Parameter	Units	Result	Detection Limit
BENZENE	PPB	BDL	7
ETHYL BENZENE	PPB	BDL	7
TOLUENE	PPB	BDL	33
XYLENES	PPB	BDL	13
TRIF-TOLUENE *SURR* LIMITS (70-130)	% REC	99	

AnalyticalTechnologies,Inc. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Client: GERAGHTY & MILLER

Project Number: MI275.01
Project Name: EAGLE PICHER
Sample Site: RIVER ROUGE, MI
Sample Type: SOIL

Lab I.D.#: 92-7379-2
Received Date: 08/26/92
Sampled By: K. LUND

Sample ID.: B-2 Sample Date: 08/24/92 Time: N/S

ETX BENZENE,ETHYLBENZENE,TOLUENE,XYLENE

Parameter	Units	Result	Detection Limit
BENZENE	PPB	BDL	7
ETHYL BENZENE	PPB	BDL	7
TOLUENE	PPB	BDL	33
XYLENES	PPB	BDL	13
TRIF-TOLUENE *SURR* LIMITS (70-130)	% REC	95	

AnalyticalTechnologies,Inc. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Client: GERAGHTY & MILLER

Project Number: MI275.01
Project Name: EAGLE PICHER
Sample Site: RIVER ROUGE, MI
Sample Type: SOIL

Lab I.D.#: 92-7379-3
Received Date: 08/26/92
Sampled By: K. LUND

Sample ID.: B-3 Sample Date: 08/24/92 Time: N/S

:TX BENZENE,ETHYLBENZENE,TOLUENE,XYLENE

Parameter	Units	Result	Detection Limit
BENZENE	PPB	BDL	6
ETHYL BENZENE	PPB	BDL	6
TOLUENE	PPB	BDL	32
XYLENES	PPB	BDL	13
TRIF-TOLUENE *SURR* LIMITS (70-130)	% REC	100	

Analytical Technologies, Inc. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Client: GERAGHTY & MILLER

Lab I.D.#: 92-7379-4
Received Date: 08/26/92
Sampled By: K. LUND

Project Number: MI275.01
Project Name: EAGLE PICHER
Sample Site: RIVER ROUGE, MI
Sample Type: SOIL

Sample ID.: SW-1 Sample Date: 08/24/92 Time: N/S

ETX BENZENE, ETHYLBENZENE, TOLUENE, XYLENE

Parameter	Units	Result	Detection Limit
BENZENE	PPB	BDL	6
ETHYL BENZENE	PPB	BDL	6
TOLUENE	PPB	BDL	32
XYLENES	PPB	BDL	13
TRIF-TOLUENE *SURR* LIMITS (70-130)	% REC	94	

Analytical Technologies, Inc. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Client: GERAGHTY & MILLER

Project Number: MI275.01
Project Name: EAGLE PICHER
Sample Site: RIVER ROUGE, MI
Sample Type: SOIL

Lab I.D.#: 92-7379-5
Received Date: 08/26/92
Sampled By: K. LUND

Sample ID.: SW-2 Sample Date: 08/24/92 Time: N/S

:TX BENZENE,ETHYLBENZENE,TOLUENE,XYLENE

Parameter	Units	Result	Detection Limit
BENZENE	PPB	BDL	7
ETHYL BENZENE	PPB	BDL	7
TOLUENE	PPB	BDL	34
XYLENES	PPB	BDL	14
TRIF-TOLUENE *SURR* LIMITS (70-130)	% REC	96	

Analytical Technologies, Inc. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Client: GERAGHTY & MILLER

Project Number: MI275.01
Project Name: EAGLE PICHER
Sample Site: RIVER ROUGE, MI
Sample Type: SOIL

Lab I.D.#: 92-7379-6
Received Date: 08/26/92
Sampled By: K. LUND

Sample ID.: SW-3 Sample Date: 08/24/92 Time: N/S

ETX BENZENE, ETHYLBENZENE, TOLUENE, XYLENE

Parameter	Units	Result	Detection Limit
BENZENE	PPB	BDL	6
ETHYL BENZENE	PPB	BDL	6
TOLUENE	PPB	BDL	31
XYLENES	PPB	BDL	12
TRIF-TOLUENE *SURR* LIMITS (70-130)	% REC	102	

Analytical Technologies, Inc. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Client: GERAGHTY & MILLER

Project Number: MI275.01
Project Name: EAGLE PICHER
Sample Site: RIVER ROUGE, MI
Sample Type: SOIL

Lab I.D.#: 92-7379-7
Received Date: 08/26/92
Sampled By: K. LUND

Sample ID.: SW-5 Sample Date: 08/24/92 Time: N/S

:TX BENZENE,ETHYLBENZENE,TOLUENE,XYLENE

Parameter	Units	Result	Detection Limit
BENZENE	PPB	BDL	7
ETHYL BENZENE	PPB	BDL	7
TOLUENE	PPB	BDL	33
XYLENES	PPB	BDL	13
TRIF-TOLUENE *SURR* LIMITS (70-130)	% REC	98	

Analytical Technologies, Inc. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Client: GERAGHTY & MILLER

Project Number: MI275.01
Project Name: EAGLE PICHER
Sample Site: RIVER ROUGE, MI
Sample Type: SOIL

Lab I.D.#: 92-7379-8
Received Date: 08/26/92
Sampled By: K. LUND

Sample ID.: SW-6 Sample Date: 08/24/92 Time: N/S

:TX BENZENE,ETHYLBENZENE,TOLUENE,XYLENE

Parameter	Units	Result	Detection Limit
BENZENE	PPB	BDL	6
ETHYL BENZENE	PPB	BDL	6
TOLUENE	PPB	BDL	29
XYLENES	PPB	BDL	12
TRIF-TOLUENE *SURR* LIMITS (70-130)	% REC	95	

Analytical Technologies, Inc. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Client: GERAGHTY & MILLER

Project Number: MI275.01
Project Name: EAGLE PICHER
Sample Site: RIVER ROUGE, MI
Sample Type: SOIL

Lab I.D.#: 92-7379-9
Received Date: 08/26/92
Sampled By: K. LUND

Sample ID.: SW-7 Sample Date: 08/24/92 Time: N/S

:TX BENZENE,ETHYLBENZENE,TOLUENE,XYLENE

Parameter	Units	Result	Detection Limit
BENZENE	PPB	BDL	7
ETHYL BENZENE	PPB	BDL	7
TOLUENE	PPB	BDL	34
XYLENES	PPB	BDL	14
TRIF-TOLUENE *SURR* LIMITS (70-130)	% REC	97	

Analytical Technologies, Inc. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Client: GERAGHTY & MILLER

Project Number: MI275.01
Project Name: EAGLE PICHER
Sample Site: RIVER ROUGE, MI
Sample Type: SOIL

Lab I.D.#: 92-7379-1
Received Date: 08/26/92
Sampled By: K. LUND

Sample ID.: B-1 Sample Date: 08/24/92 Time: N/S

LH/8310 POLYNUCLEAR AROMATIC HYDROCARBONS

Parameter	Units	Result	Detection Limit
ACENAPHTHENE	PPB	BDL	10
ACENAPHTHYLENE	PPB	BDL	10
ANTHRACENE	PPB	BDL	10
BENZO(A)ANTHRACENE	PPB	BDL	10
BENZO(A)PYRENE	PPB	BDL	10
BENZO(B)FLUORANTHENE	PPB	BDL	10
BENZO(GHI)PERYLENE	PPB	BDL	10
BENZO(K)FLUORANTHENE	PPB	BDL	10
CHRYSENE	PPB	BDL	10
DIBENZO(A,H)ANTHRACENE	PPB	BDL	10
FLUORANTHENE	PPB	BDL	10
FLUORENE	PPB	BDL	10
INDENO(1,2,3-CD)PYRENE	PPB	BDL	10
NAPHTHALENE	PPB	BDL	10
PHENANTHRENE	PPB	BDL	10
PYRENE	PPB	BDL	10
1,METHYLNAPHTHALENE	PPB	BDL	10
2,METHYLNAPHTHALENE	PPB	BDL	10
2-CHLORANTHRACENE *SURR* (24-154)	% REC	74	

Analytical Technologies, Inc. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Client: GERAGHTY & MILLER

Project Number: MI275.01
Project Name: EAGLE PICHER
Sample Site: RIVER ROUGE, MI
Sample Type: SOIL

Lab I.D.#: 92-7379-2
Received Date: 08/26/92
Sampled By: K. LUND

Sample ID.: B-2 Sample Date: 08/24/92 Time: N/S

H/8310 POLYNUCLEAR AROMATIC HYDROCARBONS

Parameter	Units	Result	Detection Limit
ACENAPHTHENE	PPB	BDL	10
ACENAPHTHYLENE	PPB	BDL	10
ANTHRACENE	PPB	BDL	10
BENZO(A)ANTHRACENE	PPB	BDL	10
BENZO(A)PYRENE	PPB	BDL	10
BENZO(B)FLUORANTHENE	PPB	BDL	10
BENZO(GHI)PERYLENE	PPB	BDL	10
BENZO(K)FLUORANTHENE	PPB	BDL	10
CHRYSENE	PPB	BDL	10
DIBENZO(A,H)ANTHRACENE	PPB	BDL	10
FLUORANTHENE	PPB	BDL	10
FLUORENE	PPB	BDL	10
INDENO(1,2,3-CD)PYRENE	PPB	BDL	10
NAPHTHALENE	PPB	BDL	10
PHENANTHRENE	PPB	BDL	10
PYRENE	PPB	BDL	10
1,METHYLNAPHTHALENE	PPB	BDL	10
2,METHYLNAPHTHALENE	PPB	BDL	10
2-CHLORANTHRACENE *SURR* (24-154)	% REC	67	

Analytical Technologies, Inc. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Client: GERAGHTY & MILLER

Project Number: MI275.01
Project Name: EAGLE PICHER
Sample Site: RIVER ROUGE, MI
Sample Type: SOIL

Lab I.D.#: 92-7379-3
Received Date: 08/26/92
Sampled By: K. LUND

Sample ID.: B-3 Sample Date: 08/24/92 Time: N/S

ıH/8310 POLYNUCLEAR AROMATIC HYDROCARBONS

Parameter	Units	Result	Detection Limit
ACENAPHTHENE	PPB	BDL	10
ACENAPHTHYLENE	PPB	BDL	10
ANTHRACENE	PPB	BDL	10
BENZO(A)ANTHRACENE	PPB	BDL	10
BENZO(A)PYRENE	PPB	BDL	10
BENZO(B)FLUORANTHENE	PPB	BDL	10
BENZO(GHI)PERYLENE	PPB	BDL	10
BENZO(K)FLUORANTHENE	PPB	BDL	10
CHRYSENE	PPB	BDL	10
DIBENZO(A,H)ANTHRACENE	PPB	BDL	10
FLUORANTHENE	PPB	BDL	10
FLUORENE	PPB	BDL	10
INDENO(1,2,3-CD)PYRENE	PPB	BDL	10
NAPHTHALENE	PPB	BDL	10
PHENANTHRENE	PPB	BDL	10
PYRENE	PPB	BDL	10
1,METHYLNAPHTHALENE	PPB	BDL	10
2,METHYLNAPHTHALENE	PPB	BDL	10
2-CHLORANTHRACENE *SURR* (24-154)	% REC	62	

Analytical Technologies, Inc. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Client: GERAGHTY & MILLER

Project Number: MI275.01
Project Name: EAGLE PICHER
Sample Site: RIVER ROUGE, MI
Sample Type: SOIL

Lab I.D.#: 92-7379-4
Received Date: 08/26/92
Sampled By: K. LUND

Sample ID.: SW-1 Sample Date: 08/24/92 Time: N/S

AH/8310 POLYNUCLEAR AROMATIC HYDROCARBONS

Parameter	Units	Result	Detection Limit
ACENAPHTHENE	PPB	BDL	10
ACENAPHTHYLENE	PPB	BDL	10
ANTHRACENE	PPB	BDL	10
BENZO(A)ANTHRACENE	PPB	BDL	10
BENZO(A)PYRENE	PPB	BDL	10
BENZO(B)FLUORANTHENE	PPB	BDL	10
BENZO(GHI)PERYLENE	PPB	BDL	10
BENZO(K)FLUORANTHENE	PPB	BDL	10
CHRYSENE	PPB	BDL	10
DIBENZO(A,H)ANTHRACENE	PPB	BDL	10
FLUORANTHENE	PPB	BDL	10
FLUORENE	PPB	BDL	10
INDENO(1,2,3-CD)PYRENE	PPB	BDL	10
NAPHTHALENE	PPB	BDL	10
PHENANTHRENE	PPB	BDL	10
PYRENE	PPB	BDL	10
1,METHYLNAPHTHALENE	PPB	BDL	10
2,METHYLNAPHTHALENE	PPB	BDL	10
2-CHLORANTHRACENE *SURR* (24-154)	% REC	58	

Analytical Technologies, Inc. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Client: GERAGHTY & MILLER

Project Number: MI275.01
Project Name: EAGLE PICHER
Sample Site: RIVER ROUGE, MI
Sample Type: SOIL

Lab I.D.#: 92-7379-5
Received Date: 08/26/92
Sampled By: K. LUND

Sample ID.: SW-2 Sample Date: 08/24/92 Time: N/S

H/8310 POLYNUCLEAR AROMATIC HYDROCARBONS

Parameter	Units	Result	Detection Limit
ACENAPHTHENE	PPB	BDL	10
ACENAPHTHYLENE	PPB	BDL	10
ANTHRACENE	PPB	BDL	10
BENZO(A)ANTHRACENE	PPB	BDL	10
BENZO(A)PYRENE	PPB	BDL	10
BENZO(B)FLUORANTHENE	PPB	BDL	10
BENZO(GHI)PERYLENE	PPB	BDL	10
BENZO(K)FLUORANTHENE	PPB	BDL	10
CHRYSENE	PPB	BDL	10
DIBENZO(A,H)ANTHRACENE	PPB	BDL	10
FLUORANTHENE	PPB	BDL	10
FLUORENE	PPB	BDL	10
INDENO(1,2,3-CD)PYRENE	PPB	BDL	10
NAPHTHALENE	PPB	BDL	10
PHENANTHRENE	PPB	BDL	10
PYRENE	PPB	BDL	10
1,METHYLNAPHTHALENE	PPB	BDL	10
2,METHYLNAPHTHALENE	PPB	BDL	10
2-CHLORANTHRACENE *SURR* (24-154)	% REC	59	

Analytical Technologies, Inc. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Client: GERAGHTY & MILLER

Project Number: MI275.01
Project Name: EAGLE PICHER
Sample Site: RIVER ROUGE, MI
Sample Type: SOIL

Lab I.D.#: 92-7379-6
Received Date: 08/26/92
Sampled By: K. LUND

Sample ID.: SW-3 Sample Date: 08/24/92 Time: N/S

H/8310 POLYNUCLEAR AROMATIC HYDROCARBONS

Parameter	Units	Result	Detection Limit
ACENAPHTHENE	PPB	BDL	10
ACENAPHTHYLENE	PPB	BDL	10
ANTHRACENE	PPB	BDL	10
BENZO(A)ANTHRACENE	PPB	BDL	10
BENZO(A)PYRENE	PPB	BDL	10
BENZO(B)FLUORANTHENE	PPB	BDL	10
BENZO(GHI)PERYLENE	PPB	BDL	10
BENZO(K)FLUORANTHENE	PPB	BDL	10
CHRYSENE	PPB	BDL	10
DIBENZO(A,H)ANTHRACENE	PPB	BDL	10
FLUORANTHENE	PPB	BDL	10
FLUORENE	PPB	BDL	10
INDENO(1,2,3-CD)PYRENE	PPB	BDL	10
NAPHTHALENE	PPB	BDL	10
PHENANTHRENE	PPB	BDL	10
PYRENE	PPB	BDL	10
1,METHYLNAPHTHALENE	PPB	BDL	10
2,METHYLNAPHTHALENE	PPB	BDL	10
2-CHLORANTHRACENE *SURR* (24-154)	% REC	55	

Analytical Technologies, Inc. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Client: GERAGHTY & MILLER

Project Number: MI275.01
Project Name: EAGLE PICHER
Sample Site: RIVER ROUGE, MI
Sample Type: SOIL

Lab I.D.#: 92-7379-7
Received Date: 08/26/92
Sampled By: K. LUND

Sample ID.: SW-5 Sample Date: 08/24/92 Time: N/S

AH/8310 POLYNUCLEAR AROMATIC HYDROCARBONS

Parameter	Units	Result	Detection Limit
ACENAPHTHENE	PPB	BDL	10
ACENAPHTHYLENE	PPB	BDL	10
ANTHRACENE	PPB	BDL	10
BENZO(A)ANTHRACENE	PPB	BDL	10
BENZO(A)PYRENE	PPB	BDL	10
BENZO(B)FLUORANTHENE	PPB	BDL	10
BENZO(GHI)PERYLENE	PPB	BDL	10
BENZO(K)FLUORANTHENE	PPB	BDL	10
CHRYSENE	PPB	BDL	10
DIBENZO(A,H)ANTHRACENE	PPB	BDL	10
FLUORANTHENE	PPB	BDL	10
FLUORENE	PPB	BDL	10
INDENO(1,2,3-CD)PYRENE	PPB	BDL	10
NAPHTHALENE	PPB	BDL	10
PHENANTHRENE	PPB	BDL	10
PYRENE	PPB	BDL	10
1,METHYLNAPHTHALENE	PPB	BDL	10
2,METHYLNAPHTHALENE	PPB	BDL	10
2-CHLORANTHRACENE *SURR* (24-154)	% REC	63	

Analytical Technologies, Inc. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Client: GERAGHTY & MILLER

Lab I.D.#: 92-7379-8
Received Date: 08/26/92
Sampled By: K. LUND

Project Number: MI275.01
Project Name: EAGLE PICHER
Sample Site: RIVER ROUGE, MI
Sample Type: SOIL

Sample ID.: SW-6 Sample Date: 08/24/92 Time: N/S

AH/8310 POLYNUCLEAR AROMATIC HYDROCARBONS

Parameter	Units	Result	Detection Limit
ACENAPHTHENE	PPB	BDL	10
ACENAPHTHYLENE	PPB	BDL	10
ANTHRACENE	PPB	BDL	10
BENZO(A)ANTHRACENE	PPB	BDL	10
BENZO(A)PYRENE	PPB	BDL	10
BENZO(B)FLUORANTHENE	PPB	BDL	10
BENZO(GHI)PERYLENE	PPB	BDL	10
BENZO(K)FLUORANTHENE	PPB	BDL	10
CHRYSENE	PPB	BDL	10
DIBENZO(A,H)ANTHRACENE	PPB	BDL	10
FLUORANTHENE	PPB	BDL	10
FLUORENE	PPB	BDL	10
INDENO(1,2,3-CD)PYRENE	PPB	BDL	10
NAPHTHALENE	PPB	BDL	10
PHENANTHRENE	PPB	BDL	10
PYRENE	PPB	BDL	10
1,METHYLNAPHTHALENE	PPB	BDL	10
2,METHYLNAPHTHALENE	PPB	BDL	10
2-CHLORANTHRACENE *SURR* (24-154)	% REC	59	

Analytical Technologies, Inc. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Client: GERAGHTY & MILLER

Project Number: MI275.01
Project Name: EAGLE PICHER
Sample Site: RIVER ROUGE, MI
Sample Type: SOIL

Lab I.D.#: 92-7379-9
Received Date: 08/26/92
Sampled By: K. LUND

Sample ID.: SW-7 Sample Date: 08/24/92 Time: N/S

AH/8310 POLYNUCLEAR AROMATIC HYDROCARBONS

Parameter	Units	Result	Detection Limit
ACENAPHTHENE	PPB	BDL	10
ACENAPHTHYLENE	PPB	BDL	10
ANTHRACENE	PPB	BDL	10
BENZO(A)ANTHRACENE	PPB	BDL	10
BENZO(A)PYRENE	PPB	BDL	10
BENZO(B)FLUORANTHENE	PPB	BDL	10
BENZO(GHI)PERYLENE	PPB	BDL	10
BENZO(K)FLUORANTHENE	PPB	BDL	10
CHRYSENE	PPB	BDL	10
DIBENZO(A,H)ANTHRACENE	PPB	BDL	10
FLUORANTHENE	PPB	BDL	10
FLUORENE	PPB	BDL	10
INDENO(1,2,3-CD)PYRENE	PPB	BDL	10
NAPHTHALENE	PPB	BDL	10
PHENANTHRENE	PPB	BDL	10
PYRENE	PPB	BDL	10
1,METHYLNAPHTHALENE	PPB	BDL	10
2,METHYLNAPHTHALENE	PPB	BDL	10
2-CHLORANTHRACENE *SURR* (24-154)	% REC	58	

end of report

Analytical Technologies, Inc. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

QUALITY CONTROL DATA

Analytical Technologies, Inc. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

CLIENT: GERAGHTY & MILLER

PROJECT: MI275.01

LAB ID: 92-7379

METHOD: 8020 / SW 846, 3rd Edition, November 1986

QC LEVEL: I

LAB ID:	CLIENT ID:	DATE SAMPLED	DATE RECEIVED	DATE EXTRACTED	DATE ANALYZED	QC BATCH	QC BLANK
92-7379-1	B-1	08-24-92	08-26-92	N/A	08-26-92	MS144	A
92-7379-2	B-2	08-24-92	08-26-92	N/A	08-26-92	MS144	A
92-7379-3	B-3	08-24-92	08-26-92	N/A	08-26-92	MS144	A
92-7379-4	SW-1	08-24-92	08-26-92	N/A	08-27-92	MS144	B
92-7379-5	SW-2	08-24-92	08-26-92	N/A	08-27-92	MS144	A
92-7379-6	SW-3	08-24-92	08-26-92	N/A	08-27-92	MS144	A
92-7379-7	SW-5	08-24-92	08-26-92	N/A	08-27-92	MS144	A
92-7379-8	SW-6	08-24-92	08-26-92	N/A	08-27-92	MS144	B
92-7379-9	SW-7	08-24-92	08-26-92	N/A	08-27-92	MS144	A

AnalyticalTechnologies, Inc. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

ETHOD INSTRUMENT BLANK

ATCH NUMBER: MS144

ETHOD: 8020 / SW 846, 3rd Edition, November 1986

ARAMETERS	DETECTION LIMIT		BLANK A	BLANK B	BLANK C
		ANALYSIS DATE	08-26-92	08-27-92	N/A
			RESULTS	RESULTS	RESULTS
TBE	5		BDL	BDL	BDL
ENZENE	1		BDL	BDL	BDL
OLUENE	5		BDL	BDL	BDL
HLOROBENZENE	1		BDL	BDL	BDL
THYL BENZENE	1		BDL	BDL	BDL
YLENES	2		BDL	BDL	BDL
,3-DCB	2		BDL	BDL	BDL
,2-DCB	2		BDL	BDL	BDL
,4-DCB	2		BDL	BDL	BDL
riF-toluene	(70-130)	*SURR*	106	97	N/A

NOTE: Units in ug/kg = Part Per Billion.
BDL = Below Detection limit.
Samples within the same calibration period may display different dates due to operation past midnight.
Source for control limits is internal laboratory quality assurance program and the method reference.
N/S = NOT SUBMITTED
N/A = NOT APPLICABLE

AnalyticalTechnologies,Inc. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

EAGENT SOIL SPIKE

ATCH NUMBER: MS144

ETHOD: 8020 / SW 846, 3rd Edition, November 1986

COMPOUNDS	SPIKE ADDED	SAMPLE CONC	SPK CONC	SPK REC%#	REC LIMITS
BENZENE	50	BDL	49	98	82-120
TOLUENE	50	BDL	54	108	77-125
CHLOROBENZENE	50	BDL	52	104	86-128

COMPOUNDS	SPIKE ADDED	SAMPLE CONC	SPD CONC	SPD REC%#	% RPD#	QC LIMITS RPD	QC LIMITS REC
BENZENE	50	BDL	51	102	4	11	82-120
TOLUENE	50	BDL	56	112	4	14	77-125
CHLOROBENZENE	50	BDL	54	108	4	13	86-128

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

ITEM ID:	ANALYSIS DATE	EXTRACTION DATE	SURROGATE RECOVERY TriF-toluene	QC LIMITS
SPK	08-26-92	N/A	83 %	70-130
SPD	08-26-92	N/A	74 %	70-130

= DILUTED OUT

NOTE: Units in ug/kg = Parts Per Billion.
BDL = Below Detection Limit.
Source for control limits is internal laboratory quality assurance program and method reference.

OMMENTS: _____

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Analytical Technologies, Inc. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

CLIENT: GERAGHTY & MILLER

PROJECT: MI275.01

LAB ID: 92-7379

METHOD: 8310 / SW 846, 3rd Edition, November 1986.

QC LEVEL: I

LAB ID:	CLIENT ID:	DATE SAMPLED	DATE RECEIVED	DATE EXTRACTED	DATE ANALYZED	QC BATCH	QC BLANK
92-7379-1	B-1	08-24-92	08-26-92	08-26-92	08-29-92	PAS218	B
92-7379-2	B-2	08-24-92	08-26-92	08-26-92	08-29-92	PAS218	B
92-7379-3	B-3	08-24-92	08-26-92	08-26-92	08-29-92	PAS218	B
92-7379-4	SW-1	08-24-92	08-26-92	08-26-92	08-29-92	PAS218	B
92-7379-5	SW-2	08-24-92	08-26-92	08-26-92	08-29-92	PAS218	B
92-7379-6	SW-3	08-24-92	08-26-92	08-26-92	08-29-92	PAS218	B
92-7379-7	SW-5	08-24-92	08-26-92	08-26-92	08-29-92	PAS218	B
92-7379-8	SW-6	08-24-92	08-26-92	08-26-92	08-29-92	PAS218	B
92-7379-9	SW-7	08-24-92	08-26-92	08-26-92	08-29-92	PAS218	B

AnalyticalTechnologies,Inc. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

ETHOD EXTRACTION BLANK / PAH

BATCH NUMBER: PAS218

ETHOD: 8310 / SW 846, 3rd Edition, November 1986.

PAH PARAMETERS	DETECTION LIMIT		BLANK A	BLANK B	BLANK C
		ANALYSIS DATE	08-25-92	08-28-92	N/A
		EXTRACTION DATE	08-24-92	08-26-92	N/A
			RESULTS	RESULTS	RESULTS
CENAPHTHENE	10		BDL	BDL	BDL
ACENAPHTHYLENE	10		BDL	BDL	BDL
NTHRACENE	10		BDL	BDL	BDL
ENZO(A)ANTHRACENE	10		BDL	BDL	BDL
ENZO(A)PYRENE	10		BDL	BDL	BDL
BENZO(B)FLUORANTHENE	10		BDL	BDL	BDL
ENZO(GHI)PERYLENE	10		BDL	BDL	BDL
ENZO(K)FLUORANTHENE	10		BDL	BDL	BDL
CHRYSENE	10		BDL	BDL	BDL
DIBENZO(A,H)ANTHRACENE	10		BDL	BDL	BDL
LUORANTHENE	10		BDL	BDL	BDL
LUORENE	10		BDL	BDL	BDL
INDENO(1,2,3-CD)PYRENE	10		BDL	BDL	BDL
NAPHTHALENE	10		BDL	BDL	BDL
HENANTHRENE	10		BDL	BDL	BDL
YRENE	10		BDL	BDL	BDL
1,METHYLNAPHTHALENE	10		BDL	BDL	BDL
2,METHYLNAPHTHALENE	10		BDL	BDL	BDL
-Chloroanthracene*SURR*	(24-154)%		114	141	N/A

NOTE: Units in ug/kg = Part Per Billion.
BDL = Below Detection limit.
Source for control limits is internal laboratory quality assurance program and the method reference.
Samples within the same calibration period may display different dates due to operation past midnight.

Analytical Technologies, Inc. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

EAGENT SOIL SPIKE / PAH

ATCH NUMBER: PAS218

ETHOD: 8310 / SW 846, 3rd Edition, November 1986.

COMPOUNDS	SPIKE ADDED	SAMPLE CONC	SPK CONC	SPK REC%#	REC LIMITS
ACENAPHTHYLENE	200	BDL	129	64	40-115
BENZO(K)FLUORANTHENE	10.0	BDL	7.3	73	22-148
CHRYSENE	10.0	BDL	9.9	99	30-135
PHENANTHRENE	10.0	BDL	7.1	71	43-120
PYRENE	10.0	BDL	7.5	75	42-106

COMPOUNDS	SPIKE ADDED	SAMPLE CONC	SPD CONC	SPD REC%#	% RPD#	QC LIMITS RPD	QC LIMITS REC
ACENAPHTHYLENE	200	BDL	125	62	3	50	40-115
BENZO(K)FLUORANTHENE	10.0	BDL	7.3	73	0	30	22-148
CHRYSENE	10.0	BDL	9.8	98	1	29	30-135
PHENANTHRENE	10.0	BDL	7.3	73	3	32	43-120
PYRENE	10.0	BDL	7.3	73	3	31	42-106

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

ITEM ID:	ANALYSIS DATE	EXTRACTION DATE	SURROGATE RECOVERY 2-Chloroanthracene	QC LIMITS
SPK	08-25-92	08-24-92	129%	24-154
SPD	08-25-92	08-24-92	128%	24-154

) = DILUTED OUT

NOTE: Units in ug/kg = Parts Per Billion.
BDL = Below Detection Limit.
Source for control limits is internal laboratory quality assurance program and method reference.

OMMENTS: _____

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& MILLER, INC.
Environmental Services

Laboratory Task Order No. 10856

CHAIN-OF-CUSTODY RECORD

92-7379

Page 1 of 1

Project Number MI 275.01

Project Location River Rouge, MI.

Laboratory ATI

Sampler(s)/Affiliation K. LUND

SAMPLE IDENTITY	Code	Date/Time Sampled	Lab ID	SAMPLE BOTTLE / CONTAINER DESCRIPTION: METHOD 8020, 8310 4 oz Soil GLASS JAR	TOTAL
B-1	S	8/24	1	1	1
B-2	S	8/24	2	1	1
B-3	S	8/24	3	1	1
SW-1	S	8/24	4	1	1
SW-2	S	8/24	5	1	1
SW-3	S	8/24	6	1	1
SW-5	S	8/24	7	1	1
SW-6	S	8/24	8	1	1
SW-7	S	8/24	9	1	1

Sample Code: L = Liquid; S = Solid; A = Air

Total No. of Bottles/ Containers: 9

				Seal Intact?
Relinquished by: Kevin D. Lund	Organization: G&M	Date 08/25/92	Time	Yes No N/A
Received by:	Organization:	Date / /	Time	
Relinquished by:	Organization:	Date / /	Time	Seal Intact?
Received by: K. J. Chapman	Organization: ATI	Date 8/26/92	Time 0815	(Yes) No N/A

Special Instructions/Remarks:

Delivery Method: ☐ In Person ☒ Common Carrier Fed Ex (SPECIFY) ☐ Lab Courier ☐ Other (SPECIFY)

G&M Form 09-9-91

Southprint 91-1768

MI0013312